

JPRS 74087

27 August 1979

China Report

AGRICULTURE

No. 51



FOREIGN BROADCAST INFORMATION SERVICE

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REPORT DOCUMENTATION PAGE		1. REPORT NO. JPRS 74087	2.	3. Recipient's Accession No.
4. Title and Subtitle CHINA REPORT: AGRICULTURE, No. 51			5. Report Date 27 August 1979	
7. Author(s)			6.	
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201			8. Performing Organization Rept. No.	
17. Sponsoring Organization Name and Address As above			10. Project/Task/Work Unit No.	
			11. Contract(C) or Grant(G) No. (C) (G)	
			13. Type of Report & Period Covered	
			14.	
15. Supplementary Notes				
16. Abstract (Limit: 200 words) This serial report contains information on agricultural activities in China.				
17. Document Analysis a. Descriptors CHINA Agriculture Weather Statistics Crops Animal Husbandry Forestry Soil Pisciculture b. Identifiers/Open-Ended Terms c. COSATI Field/Group 2				
18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161		19. Security Class (This Report) UNCLASSIFIED		21. No. of Pages 105
		20. Security Class (This Page) UNCLASSIFIED		22. Price

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CHINA REPORT

AGRICULTURE

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I. GENERAL INFORMATION

'GONGREN RIBAO' SAYS BUMPER SUMMER HARVESTS ENRICH RURAL AREAS

Beijing XINHUA in English 0205 GMT 28 Jul 79 OW

[Text] Beijing, July 28 (XINHUA)--The bumper summer harvests reaped throughout the country have brought new prosperity to the rural market and new demands for industrial goods. The WORKER'S DAILY today carried an interview with Niu Yinguan, head of the All China Supply and Marketing Cooperative.

According to Niu Yinguan, the average peasant income from his collective had increased by 17.7 per cent in the last two years. It was estimated that this year would see an increase of 13,000 million yuan in peasants' income. In the first half of this year, the turn-over of the cooperatives in the rural areas was up by 4,000 million yuan over the same period of last year. Sales of sugar, synthetic fibre clothes, and transistor radios had gone up. With the bumper summer harvests, the cooperatives would be confronted with new demands.

As for means of production, he said, the peasants would want more chemical fertilizers and more farm implements, while the demand for consumer goods would be even more spectacular. Many goods, such as printed cloth, bed sheets, woolen yarn, nylon sportswear, bicycles, sewing machines and transistor radios had already fallen short of demand. If the question was not tackled in time, the shortages would become even more marked in the latter half of this year.

Niu Yinguan pointed out that the demand for building materials was also increasing. More house-building was going on in the rural areas and this called for timber, nails, wire, cement, glass, paint and large quantities of coal for the manufacture of bricks. He cited several examples of counties where the number of houses had doubled or trebled.

With the increase in their income the peasants now demanded better quality goods. For instance, they wanted better quality cigarettes and liquor, and fashionable clothing, and were more particular as to what type of bicycle, sewing machine, wrist watch or radio they would buy. Electric fans, television sets and sofas had sold out quickly in Shanghai suburbs.

In conclusion, Niu Yinguan asked industry to produce more and better goods to enable the cooperatives to improve the distribution of goods in the rural areas.

HYBRID CORN ACREAGE, YIELD REPORTED

Chengdu ZAJIAO YUJI [HYBRID CORN] in Chinese Aug 74 pp 1-4

[Article: "Energetically Expand Cultivation of Hybrid Corn Varieties"]

[Excerpt] Corn occupies third place after rice and wheat as a principal grain crop in our province with approximately 20 million mu of it being cultivated in an average year. Distribution of corn production is quite wide in our province, with large amounts being planted in the hilly areas that surround the Sichuan Basin. It is in such areas that it is grown, for the most part, but the per unit yields there are rather low. On hills and flatlands within the basin, where it is grown in certain areas, per unit yields are quite high. Following establishment of the People's Republic, and more particularly since the Cultural Revolution, a rather large increase in corn production has taken place in our province in the wake of constant improvement in the conditions for agricultural production. In 1973, per unit yields rose 1.15 times over what they had been in the early post-liberation period of 1952, and they rose by 30 percent over what they had been prior to the Cultural Revolution in 1965. But development of corn production within the province has been very spotty with per unit production remaining below the national level with a large potential for increased production existing.

Our great leader, Chairman Mao, highly valued corn production. In his, "A Letter About Raising Pigs," of October 1959, he instructed us to "regard corn as the king of feeds.the entire country should make great and special efforts to develop it. It should regard this matter as of equal importance with grain." We shall enthusiastically respond to the call of Chairman Mao and bend ourselves to do a good job in corn production. Corn is a high yield grain crop possessed of strong adaptability and consistent yields. Given adequate fertilizer and water, it will yield even greater amounts. It can also be interplanted with beans, potatoes and yams, and wheat to make full use of available space, sunlight, and soil fertility for increased yields per unit of area. In recent years, interplanting and replanting has increased along with the flourishing of the mass movement: "In agriculture, learn from Dachai," the conscientious implementation of the "Eight Point Charter" for agriculture, and scientific

cultivation of fields. The broad masses of poor and lower-middle peasants in our province have created many forms of interplanting in the practice of production, and they have provided abundant experience in this.

Concurrent with the vigorous expansion of the cultivation of hybrid corn varieties in the Neijiang region has been a continuous expansion of the triple-cropping system through the interplanting primarily of corn and sweet potatoes with wheat [or peas and broad beans], a change from planting sweet potatoes by themselves to intercropping them with corn, and an increase in the amount of replanting to expand the area planted to corn. Corn production in 1973 was double what it had been in 1970 with yields jumping to second place in the grain production of our province. In mountain areas, where corn is interplanted with potatoes [or peas] and where it is intercropped with beans and wheat, the amount of double cropping each year is also on the increase. Additionally, along with an expansion of the double cropped area has been an increased double cropping of some early corn with late rice. This evens out use of labor, use of water, and use of fertilizer and helps solve the feed shortage problem. The area devoted to the cultivation of corn will increase in the future. Consequently, while rice and wheat production will continue to be stressed, corn production will be given an important place and per unit yields of corn will rapidly increase. This possesses great significance for surpassing "the target" set by the National Program for Agricultural Development and in bringing to reality Chairman Mao's great dictum to "dig tunnels deep, store grain everywhere, and never seek hegemony."

Chairman Mao instructed us to "energetically expand use of superior varieties." "With superior varieties, a bigger harvest can be reaped with no increase in labor or fertilizer." Practice in production demonstrates that aside from increased applications of fertilizer or its skillful use, and aside from reasonably close planting, suitably early sowing of seeds, and careful tending of crops, the most economical and most effective technological means of increasing corn yields is to increase the cultivation of hybrid corn varieties suitable to local conditions, and use of the superiority of hybrids to overcome the shortcomings of the degenerate mongrel local varieties of corn with their ungainly plants and small potential for bumper yields. Under similar conditions, yields from hybrids can show increases of 30 percent more than local varieties. Since the founding of the People's Republic, quite a few regions of the country have selectively bred corn hybrid varieties and expanded their cultivation. Following the Great Proletarian Cultural Revolution and the Criticize Lin and Criticize Confucius campaign, the furious criticism of Liu Shaoqi, and the great mass movement occasioned by Lin Biao's promotion of a counterrevolutionary revisionist line, the areas planted to hybrid corn have become larger and larger. According to preliminary statistics, the area planted to hybrid varieties of corn throughout the entire country in 1973 stood at 40 percent of the total area planted to corn, and this was an increase of 3.9 times what it had been before the Great Cultural Revolution in 1965. Among those areas

are Shandong and Shanxi provinces where planting is almost totally of the hybrid varieties and where high yield examples are emerging in large numbers. In Huang County in Shandong Province, 3.2 million mu of summer corn produced 534 jin per mu in 1972. In Pingshun [1627 7311] County in Shanxi Province, the Xigou Brigade produced an average 1,427 jin per mu of spring corn on 500 mu in 1971. The Motianling Production Team in Duan [6757 1344] County in Guangxi Province produced yields of 1025 jin per mu of spring corn on 110 mu of land in 1973. Expansion of the area planted to hybrid corn in our own province has also taken place quite rapidly during the past several years with an increase of 3 million mu taking place as of 1973 for a six-fold increase over what it had been prior to the Cultural Revolution in 1965. In parts of the counties and municipalities in Nanchong [0589 0339] and the Neijiang [0355 3068] region, the spread of corn hybrid varieties has become largely universal and has served to increase grain production from non-irrigated lands. From experience with large increases in production through cultivation of hybrid corn varieties in our province, increased harvests can be reaped in the lowlands, in the hills, and in mountain regions if only leadership is reinforced, a mass movement vigorously undertaken, the principle of "everything to derive from experimentation" adhered to, and a course adopted to fit hybrid combinations to production and by combining superior varieties with superior methods. Neijiang City has immersed itself in developing a mass movement that features, "in agriculture, learn from Dachai," in conducting education along both ideological and political lines, investment in capital construction for farmlands, scientific methods of cultivation, and systematic farming by every brigade and every commune. In 1971, hybrid varieties accounted for 40 percent of the total area planted to corn. This expanded to 70 percent by 1972. Hybrid varieties provide high yields and show strong adaptability. Despite several natural calamities during 1972, per unit yields were still 47.7 percent higher than in 1970 with an increase per mu of 130 jin for an overall yield increase of 70 percent. In 1971, Langzhong [7046 0022] County grew 66,000 mu of hybrid accounting for 55 percent of the area planted to corn. As a result of the increased production of hybrid, the 295 jin per mu yield from 120,000 mu throughout the country constituted an increase by 50 percent over the 196 jin per mu yields of 1970. In 1972, they grew 92,000 mu of hybrid comprising 68 percent of the area planted to corn, which, despite conditions of severe drought, likewise brought increased yields of 28 percent over 1970 on the 135,000 mu planted to corn, thanks to the use of hybrid varieties. Hybrid varieties enjoy high prestige among the masses who recite a round that goes, "Hybrid varieties are really good. Their stalks are short and their ears are big. They grow so nicely and ripen early. We could not do without them in fulfilling the "program" for grain production on non-irrigated lands." At the Gonghe Commune in Ebian [1494 6708] County, where the mountains are high and the slopes steep, per mu yields for corn used to be only somewhat more than 100 jin, but through vigorous efforts to improve the soil and energetic promotion of hybrid varieties, the 1972 per mu yields increased to 377

jin on 4000 mu of hybrid cornland that constituted 84 percent of the area planted to corn. In the Xiaohe No 3 Production Team in the Qili Commune in Guangyuan [1684 0337] County, where the fields are at high elevations of 1,200 meters above sea level, planting of 75 mu of "liaohe" hybrid in 1972 yielded 589 jin per mu on average for a 100 percent increase over yields from local varieties. Since the hybrid varieties of corn grow so evenly, have short and sturdy stalks, and show great adaptability, they are suitable for interplanting with other crops to achieve high yields and bumper harvests all year round. The Changhe Brigade of Fengan Commune in Zizhong [6327 0022] County, for example, planted 513 mu to hybrid corn in 1973 and conducted "three changes" at the same time, namely change from the practice of planting corn after the wheat harvest to early intercropping of corn in wheat, change from sparse planting to reasonably close planting, and change from single planting to interplanting with sweet potatoes and soybeans. Each mu had an average yield of 450 jin of corn, 22.6 jin of soybeans, and 372 jin of sweet potatoes [freeing grain for trade]. The per mu harvest for a single spring season reached 844.5 jin, exceeding the quota of the "target" set by the National Program for Agricultural Development. The preponderance of facts from everywhere demonstrates that the potential for corn production is very large, and that through rapid expansion of the use of hybrids, planting to suit local conditions, reform in the planting system, enlargement of area planted to corn, and appropriate improvement in growing techniques, corn production will take on a new dimension.

9432

CSO: 4007

'RENMIN RIBAO' DISCUSSES GRASSLAND DEVELOPMENT

Beijing RENMIN RIBAO in Chinese 19 Jul 79 p 2 HK

[Article: "Play This Game of Chess in a Lively Way"]

[Text] This "Report on an investigation of the Hulun Buir grassland" is complete with information, analysis and ideas and hits the crux of problems which exist everywhere in the vast pastoral areas. Leading comrades in the pastoral areas should find this report worth reading.

China has over 4 million mu of natural pasture, over 3.3 billion mu of which are exploitable. This is a favorable condition endowed by nature for our development of animal husbandry. Not many countries possess such a condition. It is a pity that this favorable condition has not been turned to good account due to years of interference and sabotage by the ultraleftist line of Lin Biao and the "gang of four." As a result livestock breeding was backward, people did not have enough meat to eat and the improvement of the people's livelihood in the pastoral areas was slow. The 3d plenum of the 11th CCP Central Committee called on us to "make the most of our country's favorable natural conditions and fully tap potentialities in various fields so as to greatly develop farming, forestry, animal husbandry, sideline production and fishery." It also raised the call: "We must vigorously develop animal husbandry and increase its proportion in agriculture." At a time when we are shifting the emphasis of the work of our party and country, an important task facing us is to bring about an upswing in animal husbandry in the pastoral areas. This is necessary for speeding up the four modernizations and improving the people's livelihood as well as for developing production in the minority nationality regions, strengthening national unity and strengthening border defense. Leading departments at all levels in the pastoral areas should seriously carry out investigation and study on the question of production and take effective measures to solve existing problems to advance animal husbandry.

Many of the problems pointed out in this report merit attention. Here, we wish to single out one point: to advance animal husbandry in the pastoral areas, it is necessary to truly implement the production policy of taking stockbreeding as the main task. When Lin Biao and the "gang of four" ran amuck, preposterous slogans like "animal husbandry must give

way to agriculture" and "the herdsmen do not wish to accept grain with a guilty conscience" seriously hampered the implementation of the policy of taking stockbreeding as the main task and undermined the economic prosperity and development of the minority nationality regions. To set things right, we must uphold the policy of taking stockbreeding as the main task and develop industry and diverse economic undertakings around animal husbandry in the pastoral areas. We must clearly understand that the output of livestock products is the chief criterion for measuring the contributions of a pastoral area to the state. To implement this policy, it is necessary to solve the problem of providing grain rations for the herdsmen. Several years ago, we insisted that a number of pastoral areas, particularly the stock raising communes and brigades in some part-farming and part-pastoral areas, strive for self-sufficiency in grain and forced them to carry out farming on the meadows. Very little grain was reaped, but the meadows became sandy and animal husbandry suffered setbacks as a result. To switch from farming to stockbreeding as the main task, we must take appropriate measures and provide the herdsmen with the requisite grain rations. For various reasons, our country is still rather tight in grain and has difficulties supplying adequate grain to the non-grain producing areas. For this reason, it is necessary for some non-grain producing areas to adopt safe and appropriate measures to bring about a gradual change in their production policies. We should see that we are taking this temporary measure only because we have no other alternative. Some comrades held that "we cannot attend to other things when the problem of adequate grain production has not yet been solved" and were unwilling to make correct and essential changes in the production policy. Some comrades even deemed that it was natural and right to impose grain levies on the pastoral areas and demand that these areas strive for self-sufficiency in grain. This is worth studying. We must surmount every difficulty and realistically develop farming, forestry, animal husbandry, sideline production and fishery. For example, we must implement the policy of taking stockbreeding as the main task in the pastoral areas and implement the policy of taking forestry as the main task in the forestry areas. In short, we must take positive and safe measures to rectify the production policies in different areas and play this game of chess in a lively way.

CSO: 4007

GOVERNMENT PUBLISHES CALCULATION AID FOR RURAL ENGINEERS

Beijing XINHUA in English 0211 GMT 1 Aug 79 OW

[Text] Xian, August 1 (XINHUA)—A 35-year-old mathematician has devised a simplified set of calculation tables to be used by rural cadres and technicians in designing construction projects and computing statistics in rural areas. The tables and a commentary on their use are contained in a 600-page book entitled "Calculation Tables for Rural Use" which was published recently by the Shaanxi People's Publishing House.

The volume contains 97 charts and tables with explanations of their usage and of the principles involved. With these tables, computations may easily be made, for example, with respect to agricultural growth rate, the volume of earth to be shifted in building terraced fields or irrigation channels, the volume of rock displaced by blasting and for many other farm improvement projects.

These calculations would normally take someone with a high level of education some time to work out.

As a student of mathematics at Shaanxi Teachers' University, Meng Kaitao developed a keen interest in tomography, the branch of mathematics concerned with the use of geometric diagrams and charts to express numerical change.

Ten years ago, when he worked at the site of a water conservancy project in Yanchuan, a peasant asked Meng to make a calculation for a project. He used a complicated method which no peasant could understand, and then thought of working out a simple calculating method. He has since worked hard on this project.

The draft "Calculation Tables for Rural Use" was first tried experimentally in 1973 in villages in the Yanan area. Peasants who had attained the level of primary school graduates or junior middle school could learn to use the tables very quickly. Meng Kaitao made some revisions and added new sections before publishing the present book "Calculation Tables for Rural Use."

Meng Kaitao's achievements have been the object of much attention, and government departments at the central and local level have since 1970 appropriated 30,000 yuan for his research program.

Meng Kaitao was transferred from the scientific and technological bureau of Yanchuan County to work in the mathematical calculation faculty in Northwest University in October last year. He is now revising a book entitled "Quick and Simple Methods of Multiplication and Division," which will soon be in print.

CSO: 4020

SOLUTIONS FOR OFFSHORE FISHERY RESOURCE PROBLEMS DISCUSSED

Beijing JINGJI GUANLI [ECONOMIC MANAGEMENT] in Chinese No 3, 1979 pp 27-28

[Article by Wang Guichen [3769 6311 1368]: "Quickly Save the Offshore Fishery Resources"]

[Text] Our southern and eastern coastlines are long and face a broad expanse of ocean, which is an abundant source of aquatic products such as fish, shrimp, shellfish and aquatic plants. The conditions for developing aquatic products enterprises are very favorable.

However, the destruction of Lin Biao and the "gang-of-four" during the last 10 years, plus our own shortcomings and errors in work caused severe damage to our offshore fishery resources and the major commercial fish species currently are in dramatic decline. In the areas of the Yellow Sea and the Bohai Sea, except for shrimp and a minority of fish species found in the upper water levels such as chum mackerel and Spanish mackerel, the fish are not able to make up proper fishing grounds and establish proper fishing seasons. An investigation of the catches of the boats returning to dock shows that most of the fish species are small, miscellaneous species and that the large fish make up no more than a few per cent. The East China Sea (Dong Hai) originally produced great amounts of large yellow croakers, small yellow croakers and hairtail. At present the amount of small yellow croakers is greatly reduced, the large yellow croakers are fewer than before and the hairtail are fewer year by year. The highest yearly catch of small yellow croakers was 160,000 tons, but in recent years this is generally reduced by 2 to 4 tons. The highest yearly harvest of large yellow croakers reached 190,000 tons, but in 1977 only 90 thousand tons were caught. The highest yearly harvest of hairtail was 500,000 tons, but in 1977 only 390,000 tons were caught.

Three are many reason why the fishery resources suffered damage but the main cause is excessive fishing. In the Yellow and East China Seas, for example, before WWII the fishing intensity was generally only several per cent to several 10 per cent, so the effect upon the resources was relatively slight. However, the fishing intensity has now reached 60 to 80 per cent, so, in other words, if there is 100 tons of fishery resources in a given year then 60 to 80 tons of those resources are caught. With such heavy fishing intensity it simply will not be possible to maintain schools of such long-lived fish as large and small yellow croakers and hairtail. The large yellow croaker is nowhere near reaching maturity in the first year or two and in the third year is only half grown. In the fourth year it is 90 per cent grown and then has a greatest life span of 27 years. In the past each fish caught averaged about 1 jin in weight, with large fish weighing from 2 to several jin. Now, because of over-fishing, the composition of the fish schools has been damaged and the number of mature fish is gradually decreasing so that mostly immature, small fish are caught.

There are many reasons for the over-fishing, and, leaving aside external factors, the internal factors are as follows: (1) The simple pursuit of quantity and neglect of protection for fishery resources. The "gang-of-four" through the Shanghai writer's group claimed that "as long as the seas are not dry don't worry about having fish to catch," thus creating an even more harmful influence. The facts prove that if properly utilized the ocean's fishery resources can continually reproduce; but if we employ exploitive management and drain the pond to catch all the fish then the resources will gradually dry up. (2) The extensive use of dragnets with ever smaller meshes in the nets resulting in the catch of both large and small fish is very destructive to the offshore fishery resources. Sometimes a cast of the net catches large yellow croakers so small that it takes 20 or 30 fish to make a jin, while it takes over 100 fish to make up a jin of hairtail. (3) Other factors are the disregard of the facts concerning the growth, maturation and activities of fish species, blind fishing, and the mistaken appeals to "change the slack season into a busy season" and "go wherever the fish are to be found." In this way there was excessive fishing in the fish breeding grounds of the shallow offshore waters of the Yellow Sea and the Lüsi [0712 3128] Ocean so that the egg-producing females there were also caught. The fishermen say, "This cuts off the the fishes' posterity." (4) There is too small a price differential between large and small fish. At present a dan of fish sells for about 15 yuan, with a jin of over 100 small hairtail selling for 8 to 10 yuan, so that the price differential is less than double for the larger fish. In some places there is no price differential between large and small fish, which causes excessive catching of young fish.

It is especially important to point out that the present conditions which are destroying the fishery resources not only have not stopped but are continuing to develop. How is it that everyone is now discussing the protection of the fishery resources but the fishery resources are still suffering damage? The reasons are: (1) Non-diversified management of the fishing communes and brigades with emphasis on catching fish (and with emphasis on dragnet operations) so that commune enterprises or aquatic breeding operations have developed slowly or not at all. If we now strictly limit the fishing seasons and areas and prohibit dragnet operations then the livelihood of a great many fishermen will immediately suffer. Therefore while everyone everywhere talks about protecting fishery resources no one can actually take steps to do so. (2) Fishing grounds management is chaotic, when the fishing season arrives a great many fishing boats congregate in one fishing ground with no limit to the haul and everyone fearing to have caught the least fish. Moreover, the only standard for determining a good catch is the quantity of fish caught so whoever has caught the most fish has the greatest success and is praised. No one inquires or cares about damage to the resource itself and it actually is the competition that causes the damage. (3) Our actions have not been effective. On the one hand we demand protection of the fishery resource while on the other hand we demand increased fish harvests. Thus, fishery resources protection simply comes to no avail. The destruction to the offshore fishery resources is already very dangerous and if we do not take decisive measures and merely allow the destructive conditions to continue to develop, then before long there will be no fish to catch. At that time not only will this directly influence the stability of the fishery commune's collective economy and the broad livelihood of the fishermen, moreover this will influence fish consumption and bring harm to our posterity.

In order to protect the offshore fishery resources and benefit the development of our aquatic products enterprises the following actions are proposed.

1. Immediately fix clear regulations for fishing seasons and fishing areas and prohibit all harmful fishing operations, especially the massive use of dragnets in the off-limits fishing areas, the catching of egg-producing fish and hibernating fish.
2. Open wide the other doors for production and develop diversified operations, implementing diversified management. Transform the single dragnet operation into diversified operations, restore and develop the traditional drifting and hooking operations; support strong commune and brigade development of aquatic breeding operations, positively develop commune and brigade industries, especially aquatic products processing industries; strengthen

investigation of aquatic products resources, develop new fishery resources and create conditions to develop open seas fishery.

3. Implement price classification for aquatic products sales, increasing the price for large fish and reducing it for small fish.

4. Quickly promulgate "Fishery Resources Improved Breed Protection Laws." Announce 200 nautical mile territorial limits and economic areas.

5. Strengthen fishing grounds management and quickly transform the anarchic conditions in sea and ocean fishery operations by establishing and strengthening the organizations overseeing the management of the fisheries. According to fishery resource conditions, regulate suitable fishing intensity and regulate the haul of each fishing boat.

6. The damaged resources of long-lived sea and ocean commercial fish cannot be restored in a short time. Therefore extraordinary actions should be used for fixed periods, especially in the strict limitation of the plan for fish catches in the offshore areas, even to the point of reducing the planned goals. This will greatly benefit the early recovery of the fishing resources.

7. After employing the above measures those commune and brigade members who suffer economic hardship and reduced livelihood should be given low interest or interest free loans or subsidies for a given period of time.

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CSO: 4007

NATIONAL

GROWTH OF THREE LINES OF RICE UNDER PHOTOPERIODIC CONDITIONS

Beijing ZHIWU XUEBAO [ACTA BOTANICA SINICA] No 1, Mar 78 pp 20-25

[Article by Xiao Yihua (5135 5042 5478) of the Laboratory of Genetics, Department of Biology, Wuhan University: "Growth and Development of the Three Lines of Rice Under Various Photoperiodic Conditions"]

[Text] Three-line paddy rice developed in our country has already found application in production. This is an achievement of our national agricultural research work under the guidance of Chairman Mao's revolutionary line. During 1975 and 1976, we conducted research into both the laws governing growth of hybrid rice and their three lines under various photoperiodic conditions and the suitability of hybrid combinations for use as the late crop in double cropping. This research aimed at mastery of the development and growth of the three lines of rice to provide a theoretical foundation for sifting out combinations.

Materials Used and Methodology

Test materials used were "Aiyu No 2" and its corresponding male sterile line, "29 A1 No 4A," sterile-free line "29 A1 No 4A," and restorer line IR₂₄," "Nanyu No 2 and its corresponding male sterile line 29 Nan No 1A," sterile-free line "29 Nan No 1B," and restorer line "IR₂₄."

Control varieties were "Zhenzhu A1" and "IR₆₆₁."

The above materials were sown on 19 May and transplanted on 31 May. Before being sown, the seeds were disinfected with mercuric chloride for 8 minutes, washed off with water and placed in culture pots lined with filter paper, which were then put into a 35°C case to promote sprouting. The glazed pots used were 25 mm deep and 25 mm in diameter. Eight seedlings were planted in each pot with four pots of identical seedlings.

Separate experiments were conducted with natural day length, short day length and long day length (continuous illumination). Those given short day length exposure were placed daily in a dark room from 5:30 pm one day until 7:30 am the following day for a day length of 10 hours. Those given

long day lengths were placed daily in an artificially illuminated room from 5:30 pm one day until 7:30 am the following day (with illumination provided by 30 incandescent bulbs of 20 watts each for every 1.5 square meters of area), with exposure at other times being the same as for those given natural day length exposure. All were placed in a culturing room for growth.

Day-length procedures began on 1 June. During periods of exposure to light, the division of the apical cone of the plants was microscopically checked according to a fixed schedule. When 50 percent of the plants exposed to light were found to have headed, that was set as the heading date.

Results and Discussion

1. Hybrid Rice and the Reaction of Its Three Strains to Day Lengths

Development of three varieties under different light conditions is explained in Table 1.

According to Table 1, hybrid rice varieties "Aiyu No 2" and "Nanyu No 2" are weakly photosensitive types. They are also able to head under long exposure to light. Under short day length conditions, their heading is accelerated by 18 - 32 days over natural day length conditions. Of the two, "Nanyu No 2" is more photosensitive than "Aiyu No 2," with its heading under conditions of 10 hours exposure to light per day being accelerated by 32 days. The females of both varieties ("29 Nan No 1A" and "29 Ai No 4A") are photoinsensitive types. Under short day length conditions their heading accelerated by only 1 to 3 days. The male parent of the two rice hybrids, "IR₂₄" (the restorer line) is a weakly photosensitive type. Under short day length conditions, heading accelerated by only 10 days. This demonstrates that the inheritance of photoperiodic sensitivity in this hybrid rice is transgressive.

"29 Ai No 4" and "29 Nan No 1" are early rice male sterile lines of the same type from the Yangtze basin. Their reaction to long day lengths is extremely weak, being either underactive photosensitive types or weakly photosensitive types. Thus advance heading under short day length conditions ranges from only 1 - 3 days for "29 Nan No 1" and "29 Ai No 4," while the early heading for its sterile-free line ranges from 0 - 2 days.

"IR₂₄," "IR₆₆₁" and "Zhenzhu Ai" capacity to react to long day lengths is rather weak, belonging to the weakly photosensitive types. The number of days each required to head under 10 hours exposure to light each day was shortened by 10, 22, and 8 respectively. "IR₆₆₁'s" reaction to long light exposure was slightly greater than that of "IR₂₄," being 22 days. It may be seen clearly from the above data on reaction to day lengths that the growth period of these hybrids is determined primarily by their paternal line's (restorer line's) reaction to day length. For example, heading of parental line "IR₂₄" occurred 10 days early under short day length conditions, making it a weakly photosensitive type with the result that hybrids "Aiyu No 2" and "Nanyu No 2" are also weakly photosensitive types.

Wuhan is located at 30°38' north latitude. The changes in day length during the four seasons is as follows: Spring Equinox: 12 hours 9 minutes; Summer Solstice: 14 hours 5 minutes (the shortest period of daylight during summer is 13 hours 42 minutes); Autumn Equinox: 12 hours 9 minutes; Winter Solstice: 10 hours 13 minutes. Thus, between January and June the days grow longer, and between June and December the days grow shorter. In view of the photosensitivity of the above two rice hybrids, if planted as a late rice variety in double cropping, development of these hybrids would be reduced as a result of high heat and short daylight even though the extent of the reduction would not be very great. Consequently, care would have to be taken in the selection of planting time to get maximum production.

Changes in temperature adversely affect the heading of paddy rice. In our experiments, we recorded changes in temperatures in the shaded room, the darkened room, and in the long day length room from the time seeds were processed until heading. (See Table 2).

It may be seen from the temperature changes shown in Table 2 that evening temperatures were slightly higher (by 2 or 3 degrees centigrade) for plants in short day length and long day length conditions than for those in natural day length conditions. Warm evening temperatures had a definite adverse effect on heading. But overall, we feel that of all the factors affecting the growth period of paddy rice, day length is most significant.

2. The Relationship Between Division of Apical Cone and Leaf Age Under Various Photoperiodic Conditions

For observation results on the relationship between division of apical cone and leaf age under various photoperiodic conditions, see Table 3.

It may be seen from Table 3 that under conditions of natural day length, the number of leaves on the main stem of these two rice hybrids was 17, but the number on the male parent "IR24" was 18. When the number of leaves on these two hybrids stood at 13, the apical cone began to divide. At this time the leaf age index stood around 76.4 - 79.5 percent, or about the same as for the male parent, "IR24." It may also be seen that under natural day length conditions the division of the apical cone was earlier by 5 days for the "29 Ai No 4" sterile-free line than for the sterile line. "29 Nan No 1" was earlier by 4 days. For both hybrids, no matter whether day length was short or long, leaf age at the time of division of the apical cone averaged between 12.5 and 15 leaves on the main stem. From this it may be seen that leaf age at the time of the division of the apical cone is also decided by the restorer line. It should also be pointed out that the division of the apical cone in the sterile line always occurs between 2 - 5 days later than for the sterile-free line under various conditions of day length, and this is also reflected in the heading time. This demonstrates the difference in heading between the sterile line and the sterile-free line that results not from changes in day length but takes place after a

definite number of days. This point deserves attention as it relates to sowing and to transplanting time; so that the flowering period of both lines will meet and hybridization will be possible.

3. Changes in Configuration of Stems and Leaves in Rice Hybrids and Their Three Lines Under Various Photoperiodic Conditions

See Table 4 for changes in the configuration of stems and leaves of hybrid rice and their three lines under various photoperiodic conditions. The following may be seen from the data in Table 4.

1. Under natural day length and long day length conditions, the surface area of the boot leaf and of the second and third leaves is markedly larger than in either the male parent (restorer line) or the control strain.

2. With 10 hour day lengths, the plants show marked stunting and smallness of heads. Stunting is particularly severe in the sterile line, and there is continuous tillering. The surface area of the boot leaf and the second and third leaves of the rice hybrids is much smaller than in those exposed to natural day length or long day length conditions, with all leaves exhibiting droop.

3. "29 Ai No 4A" and "29 Nan No 1A" show neck kinking [0595 7338] to a different degree under the three different photoperiodic conditions with the neck kinking most marked in "29 Nan No 1A" as compared with "29 Ai No 4A." The differences in degree of neck kinking in hybrids seems to be decided by the male line.

4. The situation as regards neck kinking in the male line under various photoperiodic conditions is as follows: Under short day length conditions, neck kinking is intensified with the neck kinking being less under natural day length conditions. A tendency toward lessening of neck kinking takes place under long day length conditions. Consequently, the growing of "29 Ai No 4A," and "29 Nan No 1A" is best done in the summertime under conditions of long day length. The neck kinking results primarily from the aborting of pollen grains in the sterile line leading to interrupted heading of the stalks. Under long day length conditions, this phenomenon in plants is less for reasons requiring further exploration. But according to the data in Table 4, leaf area, stalk height, and head length of plants exposed to long day lengths are markedly greater than for those exposed either to short day lengths or natural day lengths, and this is related to a lengthening of the growth period. Possibly this causes a smoother heading, which may be the reason that the phenomenon of neck kinking is reduced. Of course, night temperatures in the long day length room were higher by about 2 or 3 degrees centigrade (see Table 2) than other conditions of both short and natural day length, and this too may be a reason for reduced neck kinking.

By way of understanding further the neck kinking phenomenon, further investigation was made at the time of full heading of those plants exposed to short and natural day length conditions with the results shown in Table 5.

The Table 5 figures show that the length of heads with kinked necks under short day length conditions is about one-fifth the overall head length in "29 Ai No 4A", and about one-third that of full head length in "29 Nan No 1A." Because of the neck kinking and the interruption of heading, the grains at the base of the head were adversely affected. In the case of plants grown under natural day length conditions, the average number of grains in heads with kinked necks amounted to 10.4 percent of the total in a normal head of "29 Ai No 4A," and 18.9 percent of the total in normal heads of "29 Nan No 1A." In plants of the same hybrids grown under short day length conditions, the percentages were 14.9 and 20.1 respectively. A change in this harmful neck kinking situation would help increase the fruiting rate for both seeds sown and shoots transplanted.

The economic advantages of heads of hybrid rice grown under various photoperiodic conditions are manifested in Table 6. From Table 6 it may be seen that the absolute number of grains in the main head and the average number of grains per head in hybrid rice are more numerous than in the male parent "IR24" or in the control strain "IR661" or in Zhenzhu Ai, regardless of the day length conditions. This point demonstrates the superiority hybrid rice possesses under various conditions of day length, and shows both strong adaptability and high yields.

It may also be seen that under conditions of long day length, the number of grains per head in hybrid rice exceeds the number found in plants grown under short day length or natural day length conditions, and that the number of grains per head under conditions of short day length are fewer than the number found in plants grown under natural day length conditions. The several materials used in this experiment all possess similar tendencies. Their weight per thousand grains differs but little under the three different light conditions, but the weight per thousand grains of hybrid varieties is highest when compared with other varieties grown under identical light conditions. It may be seen that hybrid rice wins out with large heads, numerous grains, and high weight per grain.

Table 1. Development of Hybrid Rice and Its Three Lines Under Various Photoperiodic Conditions

Day-Length Data	Long Day Length			Natural Day Length			Short Day Length			No. of Days Heading Advanced Over Natural Day Length
	Heading Date (Day/ Month)	No. of days between sowing and heading	Heading Date (Day/ Month)	Heading Date (Day/ Month)	No. of days between sowing and heading	Heading Date (Day/ Month)	Heading Date (Day/ Month)	No. of days between sowing and heading		
Aiyu No 2	17/8	90	5/8	18/7	78	18/7	18/7	60	18	
29 A1 No 4B	21/7	63	17/7	15/7	59	15/7	15/7	57	2	
29 A1 No 4A	24/7	66	21/7	18/7	63	18/7	18/7	60	3	
Nanyu No 2	16/8	89	11/8	10/7	84	10/7	10/7	52	32	
29 Nan No 1B	11/7	53	8/7	8/7	50	8/7	8/7	50	0	
29 Nan No 1A	13/7	55	11/7	10/7	53	10/7	10/7	52	1	
Zhenzhu A1	10/8	83	30/7	22/7	72	22/7	22/7	64	8	
IR ₂₄	19/8	92	7/8	28/7	80	28/7	28/7	70	10	
IR ₆₆₁	22/8	95	9/8	18/7	82	18/7	18/7	60	22	

Table 2. Average Temperatures in Centigrade in Shaded Room, Dark Room, and Illuminated Room

Month	June			July			August		
	Day	Night	Day	Day	Night	Day	Day	Night	Night
Temperature Handling									
Shaded Room	29.5	20.8	33.5	24.7	32.2	25.3			
Dark Room	--	22.3	--	26.8	--	27.5			
Illuminated Room	--	23.5	--	27.9	--	29.2			

Table 3. Relationship Between Dividing of Apical Cone and Leaf Age in Hybrid Paddy Rice and Its Three Lines Under Various Photoperiodic Conditions

Day Length		Natural Day Length			Short Day Length			Long Day Length		
Experiment Data	Date apical cone begins to open (Day/Mo)	No. of leaves at time of apical cone division	Total number of leaves	Leaf Age Index (%)	Day Apical cone begins to open (Day/Mo)	No. of leaves at time of apical cone division	Day Apical cone begins to open (Day/Mo)	No. of leaves at time of apical cone division		
Aiyu No 2	6/7	13.0	17	76.4	17/6	12.5	15/7	13.5		
29 A1 4B	15/6	8.5	12	70.8	14/6	8.0	19/6	9.0		
29 A1 4A	20/6	8.1	12	67.5	16/6	8.0	22/6	8.5		
Nanyu No 2	10/7	13.5	17	79.5	8/6	13.0	16/7	14.0		
29 Nan No 1A	8/6	7.5	11	68.1	7/6	7.5	10/6	7.2		
29 Nan No 1B	12/6	7.5	11	68.1	9/6	7.5	12/6	7.5		
Zhenshu A1	30/6	11.5	15	76.6	20/6	10.5	7/7	12.0		
IR ₂₄	6/7	13.0	18	72.0	27/6	12.5	16/7	13.5		
IR ₆₆₁	10/7	14.0	17	82.0	17/6	13.5	22/7	14.5		

Table 4. Characteristics of Stalks and Leaves of Hybrid Paddy Rice and Its Three Lines Under Various Photoperiodic Conditions*

Data	Day Length		Natural Day Length				Short Day		
	Angle of boot leaf and spike axis (degrees)	Surface area of boot leaf (mm^2)	Area of second leaf (mm^2)	Area of third leaf (mm^2)	Length of head stalk (mm)	Length of head of stalk (mm)	Height of stalk (mm)	Angle of boot leaf and spike axis (degrees)	Surface area of boot leaf (mm^2)
Name									
Aiyu No 2	14.8	83.2	77.5	65.3	-2.0	27.8	82.8	15.2	48.0
29 A1 No 4B	16.2	56.0	61.0	61.0	1.06	22.4	70.2	17.2	43.3
29 A1 No 4A	11.4	60.5	55.0	54.0	-4.6	23.3	67.0	11.8	47.5
Nanyu No 2	18.2	92.0	83.5	71.0	-2.76	26.6	83.8	19.2	49.0
29 Nan No 1B	20.6	31.0	28.5	29.0	0.84	19.7	72.4	22.2	34.5
29 Nan No 1A	11.8	41.5	33.7	--	-5.8	19.6	63.6	12.8	30.0
Zhenzhu A1	31.4	50.0	47.0	41.0	1.36	21.1	79.0	41.8	54.5
IR ₂₄	11.5	71.5	73.5	51.0	-0.94	24.4	80.9	13.6	72.0
IR ₆₆₁	12.5	48.5	50.0	53.0	-1.1	25.2	82.6	14.0	69.5

* Leaf area calculated as $0.802 \times [(\text{leaf length}) \times (\text{widest part of leaf})]$.

Surface				Long Day							
Area of second leaf (mm ²)	Area of third leaf (mm ²)	Length of head stalk (mm)	Length of head stalk (mm)	Height of stalk (mm)	Angle of boot leaf and spike axis (degrees)	Surface area of boot leaf (mm ²)	Area of second leaf (mm ²)	Area of third leaf (mm ²)	Length of head stalk (mm)	Length of head (mm)	Height of stall (mm)
45.5	46.5	-2.02	25.7	75.0	20.0	105.0	105.0	87.5	-1.1	27.2	86.9
34.5	45.5	2.18	21.5	66.0	19.2	48.5	54.5	52.5	1.76	22.3	73.3
45.0	37.5	-5.6	20.1	65.2	13.0	58.5	54.0	53.5	-2.4	24.2	69.6
51.0	44.0	-4.4	24.4	76.0	21.0	92.5	101.0	83.5	-1.56	29.4	87.9
30.2	32.0	-2.4	17.8	67.2	22.0	36.5	32.0	29.5	1.6	19.8	74.0
30.3	--	-6.3	17.2	60.4	12.8	45.5	47.0	--	-3.28	20.6	69.6
44.5	38.5	-1.76	20.5	71.4	34.0	73.5	68.0	48.8	2.08	22.5	81.6
63.0	49.0	-1.0	23.8	72.0	12.5	74.0	70.0	66.5	-0.5	25.8	83.2
65.0	46.5	-1.8	22.5	74.4	13.5	53.5	64.0	64.0	-0.2	26.1	84.4

Table 5. Comparison of Appearance in Hybrid Rice and Its Three Lines Under Various Photoperiodic Conditions

Day Length			Short Day Length			Natural Day Length				
Data	Head length (mm)	Head stalk length (mm)	Total No. of grains per head	No. of grains in neck heads	Percentage of total number of grains	Head length (mm)	Head stalk length (mm)	Total No. of grains per head	No. of grains in neck heads	Percentage of total number of grains
Name										
Aiyu No 2	24.7	-2.0	98.6	9.3	9.4	27.2	-1.0	120.2	5.3	4.4
29 A1 No 4B	21.8	0.7	73.7	0	0	23.4	1.8	80.1	0	0
29 A1 No 4A	21.0	-4.3	81.2	12.1	14.9	22.9	-3.8	96.7	10.1	10.4
Nanyu No 2	25.1	-3.6	105.2	7.4	7.0	26.8	-2.0	111.8	4.8	4.2
29 Nan No 1B	19.1	-1.8	60.1	4.5	7.0	20.8	0.92	78.3	0	0
29 Nan No 1A	20.9	-7.1	75.4	16.3	20.1	21.5	-6.2	83.5	15.8	18.9
IR ₂₄	24.0	-1.2	88.4	6.4	7.2	25.2	-0.9	93.3	4.5	4.8

Table 6. Economic Picture of Hybrid Rice Under Various Photoperiodic Conditions

Data	Day Length			Short			Day Length			Natural			Day Length			Weight per 1000 grains (grams)
	No. of effective heads	No. of grains in main head	No. of grains per head	Empty rate (%)	Weight per 1000 grains (grams)	No. of effective heads	No. of grains in main head	No. of grains per head	Empty rate (%)	Weight per 1000 grains (grams)	No. of effective heads	No. of grains in main head	No. of grains per head	Empty rate (%)		
Alayu No 2	11.2	117.0	103.1	15.5	25.6	9.8	199.0	123.9	7.9	26.4						
29 A1 No 4B	7.4	83.8	76.2	11.8	20.0	7.0	111.8	77.8	9.3	22.1						
29 A1 No 4A	9.4	91.6	--	--	--	7.0	152.2	--	--	--						
Nanyu No 2	8.8	113.0	97.6	11.0	25.5	8.4	185.4	113.8	8.0	26.0						
29 Nan No 1B	7.2	63.0	57.8	10.0	23.5	5.0	81.4	65.5	5.1	24.8						
29 Nan No 1A	13.2	83.8	--	--	--	11.6	107.8	--	--	--						
Zhenzhu A1	6.4	89.8	79.2	12.0	21.3	8.4	134.4	91.0	8.0	22.3						
IR ₂₄	7.0	91.6	86.5	15.8	24.1	5.0	149.8	91.2	10.2	24.8						
IR ₆₆₁	7.0	95.2	91.3	16.4	25.4	5.8	155.6	108.7	10.0	25.4						

1) In the male sterile line, only the number of husks devoid of grain in the main head at the time of heading were calculated.

No. of effective heads	Long Day Length			Weight per 1000 grains (grams)
	No. of Grains in main head	No. of grains per head	Empty rate (%)	
8.4	208.4	133.4	9.8	26.1
6.4	119.6	78.4	9.4	22.6
6.2	172.4	--	--	--
8.0	219.8	118.7	10.0	26.4
7.4	86.6	66.1	9.4	25.1
7.8	115.8	--	--	--
6.2	149.2	93.2	7.6	22.8
4.4	155.8	94.0	8.3	25.1
4.8	162.5	112.5	8.1	25.8

NATIONAL

BRIEFS

AGRICULTURAL UNIVERSITY REOPENED—According to a 14 July **RENMIN RIBAO** report, the State Council has decided to reopen the Beijing Agricultural University at its original location in Beijing. The university was moved out of Beijing during the Great Cultural Revolution and was subsequently named the "Huabei Agricultural University." Restoration of the university's name has greatly inspired its teachers and students. They are resolved to build the university into an agricultural education and scientific research center and contribute their share to agricultural modernization. [Beijing Domestic Service in Mandarin 2230 GMT 13 Jul 79 OW]

CSO: 4007

BRIEFS

ANHUI PREFECTURE WATERLOGGING—In July, the people in Suxian Prefecture experienced two heavy rains, causing waterlogging over large areas of farmland. Some 2,810,000 mu of farmland in the six counties in the southern and eastern parts of the prefecture are waterlogged. In Lingbi, Cuzhen and Huaiyuan counties, everywhere is covered with water and communications have been disrupted. Quite a number of communes are one meter deep in water. The heavy rain also brought strong wind that destroyed many houses and crops. By 19 July, 1,910,000 mu of waterlogged farmland have been drained. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 26 Jul 79 HK]

CSO: 4007

TELEPHONE CONFERENCE ON AGRICULTURE HELD

Fuzhou Fujian Provincial Service in Mandarin 0300 GMT 25 Jul 79 HK

[Summary] Since the 3d plenum of the 11th CCP Central Committee, our province's rural situation has become very much better. The early rice fields promise a good harvest this year. At a telephone conference held on the evening of 24 July, the Fujian Provincial CCP Committee demanded that all localities seriously implement the spirit of the second session of the Fifth NPC, urgently get mobilized, do well in crash reaping and sowing, resolutely fight drought, enthusiastically carry out the movement to surpass early rice production with late rice production and strive to reap the whole year's bumper harvest. The telephone conference was presided over by Comrade Ma Xingyuan, secretary of the provincial CCP committee. Comrade Xu Ya, standing committee member of the provincial CCP committee, spoke at the meeting.

"The participants at the telephone conference included standing committee members from the provincial CCP committee, vice chairmen from the provincial revolutionary committee and leading comrades from all departments, committees and bureaus." Having analyzed our province's excellent rural situation, the meeting pointed out: Just when we are busily carrying out crash reaping and sowing, serious drought has appeared in many places. Although many places have paid attention to this situation, some cadres and masses in certain places have adopted a pessimistic attitude. In other places, people have not really regarded the situation as a serious and important matter.

"The meeting demanded: We must adopt effective measures, do things according to local conditions and bring the role of the now available water conservancy facilities into full play." We must speed up completion of reservoirs in construction and try to dig more wells." The concerned departments must energetically cooperate among themselves to do well in producing, transporting, supplying and installing complete sets of equipment to finish the projects in construction. We must energetically carry forward the Dazhai spirit of being self-reliant and working arduously and mainly rely on accumulation of labor to win the battle of fighting the drought."

"We should mobilize all concerned departments to give their support by supplying all equipment and machinery which are needed in the fight against the drought. We should mainly rely on ourselves to purchase needed equipment. The state will give us appropriate support and subsidies." We must bring the role of all drought fighting equipment into full play. While we make efforts to fight the drought, we should also pay attention to prevent floods. We should up the tending of late-maturing early rice and do well in fighting drought to promote cultivation of crops such as peanuts and sugarcane.

The meeting demanded: party committqes at all levels, especially the leaders, must go deep into the basic level and simultaneously grasp crash reaping and sowing and fighting drought. We must concentrate our efforts on carrying out these two tasks. We must organize a great number of cadres to go to the basic level and promptly discover and solve problems. We must concentrate our labor force and strengthen our labor management with the weather currently being hot, we must especially care for the livelihood of the masses. We should make proper planning and fully prepare ourselves to greet the new upsurge of carrying out agricultural capital construction. In addition, we should tightly and properly grasp the work of purchasing summer grain and oil.

CSO: 4007

'JIN' WHEAT VARIETY INTRODUCED

Beijing GUANGMING RIBAO in Chinese 19 May 79 p 1

[Article by Chen Youren [7115 2589 0088]: "He Manshi [0149 2518 6107] and Group at Jinjiang Prefectural Institute of Agriculture Breed Many High Yield Superior Wheat Strains"]

[Text] The deputy director of the Agriculture Technology Office of the Institute of Agricultural Science in Jinjiang Prefecture of Fujian Province, who is concurrently chief of the Wheat Research Unit there, agricultural technician He Manshi, has led comrades in the Wheat Research Unit through arduous and painstaking work in breeding many strains of high yield superior wheat called "Jin-strain wheat," making a contribution to the development of agricultural productivity.

He Manshi graduated from the Agricultural Department of the Shandong Institute of Agriculture in Shandong in the fall of 1957. During the past 20 years he has overcome many difficulties to find a way through self-reliance to breed superior varieties of wheat. He has travelled, with a bedroll on his back, through Putian, Fanyou, and Nanan visiting communes and production brigades in these key wheat producing areas. Through talks with old peasants and through examination and study, he has learned that the problem of wheat rust impeded wheat cultivation over wide areas. Discussions with comrades in the Wheat Research Unit led to a combination of methods against leaf and stem rust in wheat that included introduction of new breeds, systematic selection from among these breeds, and hybridization of them. The resulting breeds have been named, "enemy of rust early," and "long spike early." In order to select the plants with most resiliency, least surface open to the wind, and greatest sturdiness, He Manshi and the deputy chief of the Wheat Research Unit, Chen Jiarong [7115 6855 2837], roamed the fields every day during the wheat growing season carefully examining the wheat and taking notes. All in all they collected more than 1,000 breeds (strains) for experimentation from agricultural research organizations and advanced agricultural institutes both inside and outside the province. From these, they have produced 2001 combinations since 1960. Every year since 1977 they have selected more than 3,000 individual plants (strains) that required the seeding of more than 3,000 small plots of

wheat each year in more than 20 mu of superior propagation fields. After long and painstaking efforts, they finally selected Jinmai-4058 and Jinmai-2148 superior breeds of wheat. Following assessment by the Wheat Rust Unit of the Plant Protection Office of the Chinese Institute of Agriculture, these two varieties--2148 and 4058--became our nation's high stalk, three-way rust-resistant wheat variety (resistant to branch rust, leaf rust, and stalk rust), with yields of between 400 and 500 jin per mu and with yields reaching as much as 800 or 900 jin. In early April of this year, after delegates to the Superior Wheat Breeds On-the-Spot Appraisal Meeting convened by the Fujian Bureau of Agriculture had examined the Jinjiang institute's experimental fields, the delegates acknowledged that the Jin-Ge Early variety bred over the past several years by He Marshi and comrades at the Wheat Research Unit was also a superior variety resistant to rust and to dampness with broad applications, having a good stalk color and a maturation date 7 days earlier than Jinmai-2148. It is suitable for cultivation in areas of three crop high yields and may be propagated over a wide area. The No 1 Production Team of the Dongshan Brigade at Chidian Commune in Jinjiang County planted 26.61 mu to Jin-Ge Early variety this year. Under unfavorable conditions of more than 40 days of continuous rain or overcast, they reaped a harvest of 513 jin per mu.

"Jin variety wheat" is currently being propagated over an area of more than 1 million mu throughout Fujian Province for a total of one-third of the total area of the province planted to wheat. During the past 3 years, 38 provinces, municipalities and autonomous regions have introduced wheat varieties from the Jinjiang Prefectural Institute. According to incomplete figures, more than 6 million mu have been planted to Jin varieties throughout the country.

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CSO: 4007

BRIEFS

TIMBER PRODUCTION--Fuzhou, 27 Jul--Fujian Province's timber production reached more than 1.77 million cubic meters during the first half of this year, an increase of 8.9 percent over the same period of last year. The amount represents a 54.7 percent fulfillment of the annual plan for 1979. [Beijing Xinhua Domestic Service in Chinese 0147 GMT 27 Jul 79 OW]

GREEN MANURE--Recently, the Fujian agriculture bureau called for speeding up the planting of azolla. The province began to plant azolla in 1963. By 1965, there were 1,040,000 mu of azolla in the province. However, 1976, there were only 300,000 mu throughout the province. After the smashing of the "gang of four," the area planted to azolla increased to 500,000 mu in 1978. However some people still have not fully understood the importance of planting azolla. This year, the province plans to do a good job of winter protection of azolla in 20 counties. [Fuzhou Fujian Provincial Service in Mandarin 0300 GMT 10 Jul 79 HK]

CHEMICAL FERTILIZER--Fuzhou, 20 Jul--A new method of applying chemical fertilizer which helps raise the effectiveness of the chemicals is being employed on 530,000 hectares or about half the total area of the paddy fields in Fujian Province this year. The method consists of making the fertilizer into small balls and placing them into the soil as deep as six centimeters. This method in general increases the effectiveness of fertilizer by 20 to 30 percent compared with the ordinary method of spreading the fertilizer on the soil surface. It results in output increases ranging from 10 to 15 percent. The fertilizer applied by the ordinary method is easily washed or blown away. The utilization rate of nitrogenous fertilizer for example is no more than 50 percent when applied in this way. The new method prevents evaporation and erosion of the fertilizer and is therefore more beneficial to the crops. The new method was evolved by the Fujian Provincial Academy of Sciences in 1971. [Beijing XINHUA in English 0712 GMT 20 Jul 79 OW]

FLOOD CONTROL TELEPHONE CONFERENCE HELD

Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 31 Jul 79 SK

[Text] The Gansu Provincial CCP and Revolutionary Committee held a telephone conference on the evening of 28 July. The conference called on leading party and government organs at all levels to be aroused into action immediately and make good preparations for preventing floods and dealing with emergencies so as to guarantee the safety of people's lives and property. The conference pointed out: Lately various places in our province have had continual rainstorms and some places were stricken by floods and suffered damage. According to weather forecasts, rainstorms will continue in August. Therefore, leading persons at all levels must focus on preventing floods and make preparations for dealing with emergencies in a practical manner.

The conference pointed out that in those places afflicted by floods and other disasters, the leading party and government organs should organize forces to go deep into the afflicted areas, with leading persons taking command, to work with the masses in combating disasters. They should see that the masses are provided for and that they help themselves by engaging in production, that proper arrangements are made for people's livelihood and that problems caused by the flood are solved. The various prefectures and counties should take action immediately to investigate whether reservoirs and other water conservation works are solid and adopt resolute measures to repair insecure ones. It is essential to give top priority to flood control and not to lower our guard and become careless.

The conference urged the various localities to firmly enhance leadership. It is essential for the province as a whole and each prefecture, county, and commune to assign a leading comrade to concentrate on this work. In arranging work shifts in the flood season, the principal leading persons at flood control headquarters must make sure that there are persons on duty round the clock. The various persons in charge of reservoirs must act resolutely according to the established flood-control program. It is strictly prohibited to (?retain) water beyond the limit specified by the program. The various places should do a good job in preparing flood-control

materials, organizing emergency squads, and conducting inspections. Materials and funds set aside for flood control must not be diverted to any other purpose. Post and telecommunications departments must ensure unimpeded communications in the flood season.

Lastly, the conference pointed out: Summer harvesting, sowing and field management are in progress in many places of our province. While attending to flood control work, leading party and government comrades at all levels must do a good job in summer harvesting, sowing and field management. Wheat should be harvested as soon as it is ripe, and it is essential to use machines as much as possible to rush harvesting and threshing the wheat quickly to prevent losses. It is necessary to correctly handle the relations between the state, collectives and individuals and fulfill the task of procuring summer grain as soon as possible. Efforts should be made to do a good job in autumn field management, summer plowing, selecting seeds, collecting manure and the preparatory work for sowing winter wheat so as to do it in a timely manner.

CSO: 4007

'NANFANG RIBAO' REVIEWS INCREASE IN EARLY RICE YIELD

Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 2 Aug 79 HK

[Report on NANFANG RIBAO 3 August commentator's article: "What are the Major Experiences of an Increase in Early Rice Yield?"]

[Excerpts] Since the beginning of this year, and in accordance with the spirit of the third plenum of the CCP Central Committee, Guangdong's countryside has criticized the ultraleftist line of Lin Biao and the "gang of four" and gradually implemented the principles and policies stipulated in the two documents of the central authorities on agriculture. It has successfully won the hearts of the basic-level cadres and peasants and truly mobilized their socialist enthusiasm. These are the major experiences of Guangdong's early rice production in triumphing over the serious natural disasters during the early stage, improving field tending during the late stage and finally achieving an increase in yield. The fact that we have consciously carried the achievements forward and publicized the major experiences is a fundamental guarantee for doing well in increasing late rice yield and reaping a bumper harvest for the whole year.

We have reaped an unexpectedly bumper early rice harvest this year and there are many reasons for this. However, the major reason is that we have implemented the party's policies and have mobilized the basic-level cadres and tens of millions of peasants.

We have gradually implemented the policy of respecting the self-determination rights of production teams and have started correcting and preventing equalitarianism and indiscriminate transfer of resources. We have scored preliminary achievements in taking such measures as are suitable to local conditions and formulating cultivation plans and productive measures. The masses in many places have noted that this is a major policy, when this major policy is implemented, the peasants will be able to master their own destiny. We have implemented different forms of the systems of production responsibility which include those related to yield and have practiced the policy of to each according to his work with relatively good achievements. Many peasants have noted that this is also a major policy. When this policy

is implemented, equalitarianism is struck down. The diligent have worked even more diligently and the lazy have started working diligently. All people have turned out for work and worked hard and there has been a great change in the countryside.

We have implemented the principles of taking grain as the key link and insuring all-round development, taking such measures as are suitable to local conditions and instituting appropriate concentration and have guided communes and brigades in following the road of comprehensive development in agriculture, industry and sideline production. We have grasped grain on the one hand and money on the other, with the aim of filling our granaries with grain and our purses with money. At the same time, we have vigorously implemented the policy regarding the small freedom under the big collectives. We have encouraged and supported commune members to develop household sideline occupations, promoting simultaneous development in the collective economy and household sideline production.

We have also gradually implemented the policy regarding people. The verdicts on many unjust, trumped-up and incorrect cases have been reversed and many experienced cadres have once again taken up work posts. Many people have put down the heavy burdens laid on them by Lin Biao and the "gang of four" and large numbers of law-abiding landlords and rich peasants have had their labels removed and have participated in labor for building socialism.

Moreover, the state has raised the procurement prices for grain and some other agricultural products, thus increasing the incomes of collectives and individuals. This is an effective encouragement to peasants and everybody knows about it.

CSO: 4007

GUANGDONG, GUANGZHOU COMBAT STRONG TYPHOON

Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 2 Aug 79 HK

[Excerpts] The cadres and masses of Guangdong braved wind and rain, fought in unity and courageously resisted the no. 8 strong typhoon which attacked Guangdong on 2 August, greatly reducing the losses.

Guangdong's meteorological departments made relatively accurate forecasts about the strong typhoon in a timely way and were relatively accurate in predicting the place where it hit.

With regard to the forecasts made by the meteorological departments, Guangdong's leadership departments of the party and government made prompt and opportune decisions and held urgent meetings. They quickly mobilized the leadership at all levels and the cadres and masses to plunge into the battle of resisting the strong typhoon. They did well in calling back fishing boats, repairing houses in critical condition and guarding dams and embankments.

In Shantou Prefecture, secretaries of the Prefectural CCP Committee personally grasped the work concerning resisting the typhoon. Two deputy secretaries of the Prefectural CCP Committee and a vice chairman of the Prefectural Revolutionary Committee led work groups, went deep into various key places and mobilized the masses to do well in promoting prevention work.

After receiving the typhoon warning, the Shenzhen Municipal CCP Committee immediately held a standing committee meeting of the Municipal CCP Committee and formulated plans for resisting the typhoon. After the meeting, it again called a municipal urgent telephone conference at 2300 on the same evening and mobilized the cadres and masses to plunge into the battle.

The strongest typhoon since the beginning of this year attacked Guangzhou on 2 August. Responsible persons of all units and departments personally commanded the battle and the masses actively guarded against it, thus greatly reducing the losses. According to preliminary statistics, 21 people in the municipality were injured but they all received prompt medical treatment.

Electric power supply lines were broken by the wind at some 40 places and they are all being repaired.

The no. 8 strong typhoon broke with tremendous force. After receiving the forecast about the strong typhoon by the meteorological departments, the Guangzhou Municipal CCP and Revolutionary Committees formulated plans in a timely way. The headquarters for guarding against drought, floods and typhoon and all district CCP committees and departments immediately held urgent meetings to study measures to guard against the typhoon.

CSO: 4007

TYPHOON 'HOPE' KILLS 12

Beijing XINHUA in English 1546 GMT 3 Aug 79 OW

[Text] Guangzhou, 3 Aug (XINHUA)—Typhoon "Hope" reached the Chinese coast near Shenzhen (Shumchun) in Guangdong Province with hurricane force at 1330 hours yesterday, bringing a sudden downpour.

The typhoon caused damage in the coastal areas of Shantou (Swatow), Huiyang and Foshan prefectures: sea dykes in Shantou were breached in part by the tide; fields of late paddy rice flooded while crops of bananas, mandarins and oranges, sugar cane and jute were flattened. According to reports from Chenghai, Puning and Huilai, 12 people were killed by collapsing houses.

Rescue and relief work teams have been sent to the typhoon-stricken areas by Shantou and Foshan Prefectures.

After striking Guangdong, typhoon "Hope" moved west by north and its intensity diminished gradually. It had dwindled to a storm of much lower intensity by the time it reached the eastern part of the Guangxi Zhuang autonomous region at 2000 hours today. Before "Hope" reached Guangdong, the central and provincial meteorological stations had forecast its projected path and had warned areas likely to be affected to make the necessary preparations.

CSO: 4007

'NANFANG RIBAO' URGES CONSTRUCTION IN MOUNTAIN AREAS

Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 25 Jul 79 HK

[Report on NANFANG RIBAO 25 July commentator's article: "We Should Rapidly Speed up Construction in Mountain Areas"]

[Excerpts] The article said: Reading the report on Lianshan County can be helpful in answering people's questions of whether or not there is great hope in carrying out construction in mountainous areas and whether or not people in mountainous areas can become rich more rapidly. In view of its natural mountainous conditions and having a great deal of forests and fields, the county has affirmed its production principles according to its local conditions. The county has simultaneously grasped timber and grain production and developed a diversified economy. In only about 2 years, relatively great developments have been seen in the grain, timber and industrial crop production and commune and brigade enterprises. An amount of construction capital has been accumulated to facilitate the development of the small hydroelectric enterprises as a result, the pace of agricultural mechanization has been speeded up and the people's livelihood improved. These facts have shown that the production potential in mountainous areas is enormous and that bright prospects exist for carrying out construction there.

The article pointed out: The source of poverty in the mountainous areas began with Lin Biao and the "gang of four" advocating for a long time the ultraleftist line which brought calamity to the country and people, confused the party's whole series of principles and policies and seriously harmed the enthusiasm of the people in the mountainous areas. However, Lin Biao and the "gang of four" were smashed one after the other, the ultraleftist line pursued by them was also criticized and the party's principles and policies gradually implemented.

Focusing on meeting the needs of systematically and proportionately developing the national economy and comprehensively developing agriculture, forestry, animal husbandry and fishery, the party organizations at all levels of the mountainous areas are now proceeding from the natural and economic condition of every prefecture, county, commune and brigade to lay down a set of appropriate and practical production principles. Amid

this favorable situation, so long as we continue to implement the spirit of the third plenum and the second session of the Fifth NPC, emancipate our minds, criticize the ultraleftist line, resolutely carry out the principles of taking timber production as the key link, simultaneously promoting timber and grain production, developing a diversified economy and carrying out comprehensive development and are good in summarizing and popularizing the masses' practical experiences, we will certainly be able to speed up the pace of constructing the mountainous areas.

The article said: What can we do if we lack capital in developing the mountainous areas? We can claim capital from the mountains. With a population of some 80,000, Lianshan County gained some 5.2 million yuan last year from diversification, such as cultivation and breeding occupations, and some 4.3 million yuan from its commune and brigade enterprises. So long as we are persistent in working hard, the appearance of the mountainous areas can be changed very rapidly.

CSO: 4007

BRIEFS

LATE RICE--By 27 July, 5 million mu of late rice was transplanted throughout Guangdong. All the places in the province pledged to basically complete transplanting before autumn begins [7 August], so as to reap a bumper harvest of agriculture for the whole year. Recently, the party committees of the prefectures and counties have held telephone conferences or issued circulars on launching crash transplanting of late rice. By 25 July, 80,000 mu of late rice was transplanted in Lechang County, accounting for 40 percent of the areas to be transplanted. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 1 Aug 79 HK]

EARLY RICE--By 13 July, 10 million mu of early rice had been reaped throughout Guangdong. In Hainan, harvesting of early rice has been completed and transplanting of late rice is in full swing. Zhanjiang, Foshan, Shantou, Zhaoqing and Huiyang prefectures and Guangzhou municipality have reaped 20 to 30 percent of their early rice. During this season for growing early rice, the weather in this province was abnormal with prolonged low temperature and rain. After the transplanting of seedlings, there was more rain and less sunlight, which was very unfavorable to the growth of the seedlings. This year, the season for reaping early rice was postponed in the province. In Lianjiang County, 320,000 people are taking part in summer reaping and sowing, accounting for 90 percent of the total labor force in the whole county. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 17 Jul 79 HK]

SWEET POTATOES--According to statistics, by 5 July the peasants in the countryside of Guangdong had planted 680,000 mu of summer sweet potatoes. Sweet potatoes are one of the main crops in Guangdong. Every year 10 million mu are sown to sweet potatoes, accounting for one-eighth of the area sown to grain for the whole year. The communes and brigades throughout the province have increased the areas sown to sweet potatoes by 800,000 mu over last year. In May, the peasants in Shantou Prefecture planted 60,000 mu of sweet potatoes. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 12 Jul 79 HK]

GUANGDONG PREFECTURE DROUGHT—Since early July, the people in Shaoguan Prefecture had not received any rain and experienced high temperatures. The water levels in the ponds and reservoirs were lowered by 44 percent, while the flow of water drawn in the water-drawing projects was reduced by 35 percent. Drought is occurring in many places. The seedlings of late rice and crash transplanting were affected. All trades and professions have been mobilized to support the struggle to resist drought. Drought resisting commands and offices have been set up in the prefecture. [Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 28 Jul 79 HK]

LATE RICE PRODUCTION—An upsurge in late rice production has been whipped up all over the Hainan administrative region. As of 5 July, 90 million jins of late rice seeds have been sown and nursed and 30 million dans of manure have been spread on fields. According to incomplete statistics, since the beginning of summer the eight counties of Qionghua, Dingan, Chengmai, Danxian, Baisha, Dongfang, Changjiang and Qiongzong have serviced and sunk more than 1,900 drainage and irrigation channels with a total length of over 1,100 km. To lay a solid foundation for boosting the late rice production, an irrigated area covering more than 100,000 mu has been expanded and improved. [Haikou Hainan Service in Mandarin 0430 GMT 13 Jul 79 HK]

CS0: 4007

BRIEFS

GUANGXI COUNTY RICE—By 21 July, the people in Lipu County had reaped 91,000 mu of early rice, accounting for 40 percent of the early rice to be reaped. Late rice seedlings have been transplanted to 1,500 mu in the first half of this year. This county experienced low temperatures and rain, had fewer hours of light, and the ripening period of early rice was postponed for 7 days. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 26 Jul 79 HK]

GUANGXI COUNTY SUMMER CROPS—Jingxi County has reaped a bumper harvest of its some 390,000 mu of spring maize this year. By 14 July, the county had basically completed harvesting maize in the field and had transplanted late-rice seedlings to some 176,000 mu, fulfilling 80 percent of the cultivation plan. It has also planted some 23,800 mu of late maize, soybean and sweet potatoes. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 21 Jul 79 HK]

GUANGXI SUMMER REAPING, SOWING—By 18 July, Yongning County had reaped 567,300 mu of early rice and transplanted late-rice seedlings to 37,400 mu. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 21 Jul 79 HK]

CRASH REAPING, SOWING—Hepu County has speeded up crash reaping and sowing. By 23 July, Hepu County had harvested 525,000 mu of early rice, amounting to 99.6 percent of the area of early rice, and had transplanted late rice seedlings to some 169,400 mu. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 27 Jul 79 HK]

GUANGXI COUNTY RICE—By 28 July the people in Xincheng County have transplanted 19,600 mu of late rice and planted 53,000 mu of late maize and 18,600 mu of sweet potatoes with better quality than last year. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 30 Jul 79 HK]

GUANGXI COUNTY PIGS—The people in Quanzhou County have fulfilled the procurement of pigs ahead of schedule for the whole year. By 10 July, 71,400 pigs have been purchased throughout the county, overfulfilling the whole year's task by 5 percent, while procurement of pigs has been overfulfilled by 110.7 percent for the whole year, an increase of 79.8 percent over the corresponding period of last year. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 30 Jul 79 HK]

EARLY RICE--At present, the early maturing variety of early rice in Guangxi is in the stage of yellow ripeness. The communes and brigades in the south have generally begun harvesting, while some of the communes and brigades in the north have also begun harvesting. By the end of June, the average per mu yield from the 309,800 mu in Yulin Prefecture increased by 40 jins over the corresponding period of last year. The average per mu yield from 55,000 mu in Wuzhou Prefecture increased by 12 jins over the corresponding period of last year. This year, the region experienced prolonged low temperature and rain. As a result, the ripening period of early rice was delayed by 7 to 10 days. This has greatly affected the production of late rice. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 9 Jul 79 HK]

CS0: 4007

BRIEFS

PINGXIANG LAND IMPROVEMENT--Pingxiang County, Hebei Province, has in the past few years improved 180,000 mu of low-yielding alkaline and saline land. Over 50 percent of this county's 430,000 [mu of] cultivated land are such land. Last year, county's total grain output was 119 million jin, nearly 4 times that before the soil improvement campaign. [Beijing Domestic Service in Mandarin 1200 GMT 3 Jul 79 OW]

XINGTAI COUNTY HARVEST--Xingtai County in Hebei Province expects to reap a bumper harvest from its 300,000 mu of wheat and its 110,000 mu of cotton is growing well. Since last winter and spring this year, the county has invested 240,000 yuan in funds and over 5,000 tons of cement in building water conservancy projects in hilly areas and succeeded in turning 280,000 mu of dry farmland into paddy field. The county expects to reap a bumper harvest from its 150,000 mu of wheat in hilly areas and 85,000 mu of cotton in hilly areas is growing well. [Beijing Domestic Service in Mandarin 1000 GMT 30 Jun 79 OW]

BEIJING COUNTY GRAIN PROCUREMENT--By 6 July, Changping County had procured 26.3 million catties of summer grain, overfulfilling its state quota for procurement of summer grain. [Beijing City Service in Mandarin 0000 GMT 3 Jul 79 HK]

CSO: 4007

BRIEFS

MINOR AUTUMN CROPS--HEILONGJIANG RIBAO reports that the total output value of Heilongjiang's minor autumn crops this year is estimated at 200 million yuan and the government purchase of these crops may exceed 100 million yuan, or 25 percent over the same period last year. [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 21 Jul 79 OW]

FARM PRICES--The Heilongjiang Provincial Revolutionary Committee recently issued a circular on readjusting purchase prices for grain and oil-bearing crops. Effective 1 August this year, the purchase price of six major grain crops including soybeans, wheat, rice, millet, corn and sorghum will be increased from the present average of 12.23 yuan per 100 jin to 14.53 yuan, or 18.8 percent; that of 25 miscellaneous cereals and beans from 14.51 yuan per 100 jin to 18.10 yuan, or 24.7 percent; and that of eight small oil-bearing crops from 30.75 yuan per 100 jin to 38.75 yuan, or 26 percent. An additional 50 percent increase on top of the new purchase prices will be paid for surplus grain and oil-bearing crops sold to the state after fulfilling state purchase quotas set every 5 years. [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 27 Jul 79 OW]

ANIMAL HUSBANDRY--Harbin, 24 Jul--Heilongjiang Province has vast areas of farmland, some 50 million mu of grassland and slope land in mountainous areas suitable for farming or livestock breeding, making the province one of China's major grain and livestock bases. Owing to lopsided emphasis on grain production in the past decade or so, livestock production was neglected and much of the grassland was destroyed. The situation is being corrected. Now, in counties where the emphasis should be on livestock, such as Anda and Dorbod counties, the emphasis is placed on livestock, while efforts are being made to develop a diversified economy around livestock production. In 12 counties where conditions are suitable for both grain and livestock production, including Fuyu, Longjiang, Zhaozhou and Zhaoyuan counties, farming and livestock breeding are being developed simultaneously. In grain-producing counties, people are encouraged to raise livestock as a side occupation. [Beijing Xinhua Domestic Service in Chinese 0224 GMT 24 Jul 79 OW]

RURAL SAVINGS--Rural commune members in Heilongjiang Province are putting more money in banks. By the end of June, their savings deposits had reached more than 197 million yuan, an increase of 22 million yuan as compared with the same period of last year. [Harbin Heilongjiang Province Service in Mandarin 1100 GMT 27 Jul 79 OW]

HEILONGJIANG INSECT PEST--Recently the grassland in Zhaoyuan County, Heilongjiang, was plagued by locusts. In 10 days, the Civil Aviation Bureau flew 188 sorties to aerial-spray insecticide over the affected areas. Together with manual spraying, a total of 190 dun of insecticide was applied. In Mingshui County, 530,000 mu of farmland of 15 communes was damaged in varying degrees by aphids. With the help of 126 dun of farm chemicals and 500 machines, more than 300,000 mu of farmland has been saved. Hulan County has scored good results in chemically and manually killing insects on 190,000 mu of farmland. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 19 Jul 79 OW]

ZHAOZHOU COUNTY LAND DEVELOPMENT--Harbin, 29 Jun--Zhaozhou County in Heilongjiang has more than 1.8 million mu of arable land and 900,000 mu of grassland, a place suitable for development of both agriculture and animal husbandry. In 1978 the county delivered 90 million jin of marketable grain to the state. The county now has 140,000 head of sheep, and its 1.5 million mu of autumn field crops and spring wheat are growing well. [Beijing XINHUA Domestic Service in Chinese 0232 GMT 29 Jun 79 OW]

KESHAN COUNTY INFERIOR SEEDLINGS--Keshan County, Heilongjiang, is mobilizing 100,000 people to improve 250,000 mu of second rate and 320,000 mu of third rate rice seedlings by various methods including application of additional fertilizers, preventive efforts to cope with drought, hails, cold spells, early frost and other possible unfavorable circumstances. The county has 194 anti-hail centers. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 15 Jul 79 OW]

HULAN COUNTY PADDY FIELDS--Hulan County, Heilongjiang, had about 60,000 mu of paddy fields a few years ago, 100,000 mu in 1978 and 130,000 mu this year. The county's cultivated land totals 880,000 mu. With limited state investment, the county in this year completed 132 small water conservancy projects and 32 new power wells and electric power pumping stations bringing the total number to 42. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 15 Jul 79 OW]

CSO: 4007

CONFERENCE ON AGRICULTURAL PRODUCTION HELD

Zhengzhou Henan Provincial Service in Mandarin 1100 GMT 26 Jul 79 HK

[Summary] On the morning of 26 July, the Henan Provincial CCP Committee held a conference on agricultural production. Attending were responsible comrades of the prefectural and county CCP committees; representatives of advanced communes, brigades and individuals, scientists and peasant technicians; and responsible comrades of all departments, committees and bureaus of organs at the provincial level, a total of 831 people. Hu Lujiao, (Liu Tie), Qiao Mingfu, Li Qingwei, Song Yuxi, (Li Fuxiang) and Hu Xinyuan), responsible comrades of the provincial CCP committee, also attended. (Liu Tie), standing secretary of the provincial CCP committee, spoke. He said that the province has seriously implemented the spirit of the 3d plenum of the 11th party Central Committee and the situation is excellent. The province has reaped a bumper harvest of wheat and rape. He pointed out: "We must lay stress on solving two problems: 1) conveying the spirit of the national conference on farmland capital construction and implementing the principle of and plan for farmland capital construction in our province; 2) making good preparations for sowing late rice as early as possible, summing up and exchanging the experience in agricultural production and taking effective measures to win a bumper harvest of wheat next year and gradually building Henan Province into a base of grain and oil."

Li Qingwei, secretary of the provincial CCP Committee, conveyed the spirit of the national conference on farmland capital construction.

A group discussion was conducted in the afternoon.

CSO: 4007

HENAN

BRIEFS

SUMMER SOWING--Henan Province has just completed the summer sowing of over 90 million mu of autumn cropfields. Its total autumn grain output usually accounts for over 60 percent of a year's total grain output. [Beijing Domestic Service in Mandarin 1200 GMT 22 Jul 79 OW]

CSO: 4007

FARMLAND IMPROVEMENT DISCUSSED

Wuhan Hubei Provincial Service in Mandarin 1100 GMT 4 Aug 79 HK

[Summary] A recent provincial conference on farmland capital construction, convened by the Provincial CCP and Revolutionary Committees, conveyed and implemented the spirit of the national conference on this topic, summed up experiences and lessons, unified thinking, discussed how to win a still greater bumper harvest next year, and made initial arrangements for farmland capital construction next winter and spring. Responsible persons of the Provincial CCP Committee conveyed the speeches of Chairman Hua and Vice Chairman Li delivered at the national conference and relevant documents.

Analyzing the current fine rural situation, the conference pointed out: "The main reason why we have been able to overcome drought and win a bumper harvest is that we have implemented the spirit of the third plenum and the second session of the Fifth NPC, and seriously carried out the two important central documents on developing agriculture, which have mobilized the activism of the cadres and masses. Our success is also inseparable from our efforts in carrying out farmland capital construction over a long period. This shows that we have scored great achievements in farmland capital construction in Hubei. However, the test of 2 years of drought together with the recent floods has shown that we are not yet up to the mark in farmland capital construction."

To do well in this construction work next winter and spring, the conference held: It is first necessary to study and publicize the spirit of the 3d plenum of the 11th Central Committee and the 2d session of the Fifth NPC and implement the spirit of the National Farmland Capital Construction Conference. Secondly, we must act in the light of local conditions and formulate all-round plans for comprehensive harnessing of mountains, rivers, forests, farmland and roads. Thirdly, we must concentrate forces for battles of annihilation. In the coming winter and spring, it is necessary to do well in improving the existing water conservancy projects and strengthening embankments. Fourthly, we must display the spirit of self-reliance and hard struggle. Fifthly, it is necessary to improve water conservancy project management. Sixthly, it is necessary to strengthen leadership and regard farmland capital construction as a great socialist undertaking.

BRIEFS

HUBEI COUNTY RICE SEEDS—After harvesting of early rice, the seed stations at all levels in Jingmen County have begun storing fine seeds of early rice. There are 1.3 million mu of rice in this county. Each year, the people in this county sell 500 million jin of commercial grain, and require 50 million jin of seeds. The areas for cultivating seeds account for one-fifth of the total areas sown to rice. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 29 Jul 79 HK]

HUBEI COUNTIES COTTON—Tending of cotton in Xinzhou, Gonggan and Zhijiang counties is proceeding along with crash reaping and sowing. The period of crash reaping and sowing of rice is also the important period of cotton growing as natural disasters can occur easily during this period. In Xinzhou County, there are 300,000 mu of cotton, while in Zhijiang County, there are 270,000 mu. By mid-July, 180,000 mu of cotton in Zhijiang County have received additional fertilizer. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 27 Jul 79 HK]

HUBEI COUNTY CROPS—In 1979 the output of summer grain in Jingshan County reached 72.5 million jin, an increase of 15 percent over 1978, which recorded the highest level previously. The people in this county have also reaped a bumper harvest of early rice from 150,000 mu, while growth of 500,000 mu of mid-season rice is doing well. There was a serious drought in this county in spring and summer this year, causing very great difficulties to spring farming. There are 2,297 production teams in this county. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 29 Jul 79 HK]

HUBEI PREFECTURE PIGS—By the end of June, the peasants in Enshi Prefecture had increased the number of pigs by 20 percent over the corresponding period of 1978, which was the highest output recorded previously. The number of pigs received this year was 67.3 percent higher than the corresponding period of 1978. In the eight counties of the prefecture, six counties increased the number of pigs by 20 percent. The other two counties increased by 15 percent. In (Chengguan) Township, each resident received 3 jin of pork per month. In the first half of this year, the number of pigs raised by the commune members privately increased by 32 percent over the corresponding period of last year. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 26 Jul 79 HK]

COTTON PRODUCTION MEETING--The recently held provincial on-the-spot meeting on cotton production stressed that communes and brigades in cotton producing areas must further strengthen cotton field management, strive to increase per unit area yield and strive to reap the greatest cotton output this year. Participants in the meeting inspected cotton fields in Tianmen, Xinzhou, Mianyang, Hanchuan and Huangqi counties and some cotton fields of communes and brigades in Wuhan. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 2 Jul 79 HK]

CSO: 4007

HUNAN COMMENTATOR'S ARTICLE URGES LATE RICE TENDING

Changsha Hunan Provincial Service in Mandarin 1100 GMT 9 Aug 79 HK

[Article by station contributing commentator's article: "Go All Out To Implement Measures and Strive To Reap a Great Bumper Early Rice Harvest"]

[Excerpts] The urgent battle of crash reaping and sowing has concluded. At present, the central task laid before Hunan's rural cadres and masses is to immediately switch our efforts, strengthen the tending of late rice fields and reap a great bumper late rice harvest this year.

The situation of Hunan's late rice production this year is generally good. The progress of crash transplanting has been fast, the quality of work has been good and the farming season was not missed, laying a good foundation for achieving high yield. However, some new situations worth paying attention to have also arisen. At present, three ideological tendencies among the rural cadres and masses must be overcome.

1. Complacency and relaxation of efforts. Some comrades held that since there is a bumper early rice harvest this year, it should not affect the overall situation whether or not they do well in grasping late rice production. This idea is very harmful. We should see that this year's relatively good early rice harvest constitutes the victory in one battle only in the agricultural production for the whole year. Moreover, in terms of the whole province, many places have suffered from natural disasters during the first half of this year and production has been very unbalanced. In addition, the cultivated areas have been reduced and the rate of increase in early rice yield has not been high. We will have to rely on late rice production in order to realize the demand put forward by the Hunan Provincial CCP Committee regarding increasing annual grain yield by 5 to 10 percent.

2. Unrealistic optimism. Seeing the victory won in this year's battle of crash reaping and sowing, the recent fine weather and the fast greening of late rice seedlings, some comrades have become unrealistically optimistic.

3. Fear of difficulty. Seeing that some new contradictions have arisen in this year's late rice production, that the rice seedlings have aged and transplanting work has been delayed, the comrades in a small number of places have felt that there will be relatively great difficulty in reaping a bumper late rice harvest. The difficulties have objectively existed. Practice has demonstrated that it is not impossible to resolve the contradictions. As for the aged rice seedlings, so long as we adopt the measures of early cultivation, vigorous manure-spreading during the early stage and scientific administration of water to hasten growth, it is absolutely possible to reap a bumper harvest.

The leadership at all levels must have the idea and enthusiasm of competing for every minute and second. They must mobilize the masses to seize the time, fight a shock battle focusing on early and careful field tending in the next 10 to 15 days and implement all measures to increase production. They must do everything possible to cultivate high-yield plants at the fruiting stage before 20 August and lay a solid foundation for a high late rice yield.

CSO: 4007

HUNAN COMMUNE SUCCESSFUL IN AFFORESTATION PROJECT

Beijing XINHUA in English 0225 GMT 28 Jul 79 OW

[Text] Changsha, July 28 (XINHUA)—One thousand hectares that were once nothing but barren purple shale, a kind of hard rocky substance, in Jinxing people's commune of Hengyang County, Hunan Province, are now covered with lush forests of tallow trees and orchards. Most of the tallow trees are big enough for felling and some fruit trees have begun to bear fruits.

Recommended as an outstanding achievement at a recent provincial meeting on rural work, the success has great local significance, for 400,000 hectares of land in Hunan have this kind of rock surface.

All Jinxing commune's 1,200 hectares of hill slopes are of purple shale. Owing to wind and rain erosion, the rock used to peel off layer by layer and the weathered rock and debris would wash down with the rain to silt up farmland and irrigation projects below.

Local peasants had tried all kinds of methods of controlling the destructive process, but failed up until 1973.

It was then they cut ditches around hill slopes, filled in the ditches with fertile soil from ponds at the foot of the hills and planted trees. By now, more than 900 hills have been transformed. The people grow grain and industrial goods between rows of trees.

This success has helped the commune increase its grain output from three tons per hectare in 1973 to 7.5 tons in 1978. From the rocky hills alone, it harvests 300 tons of grain and 50 tons of rapeseed a year.

The peasants of the commune have also dredged 800 silted ponds, increasing water storage capacity by 220,000 cubic metres. Using the water for irrigation, they turned 200 hectares of land into double cropping rice fields.

Following Jinxing commune's example, Hengyang County afforested more than 5,000 hectares of its 16,000 hectares of purple shale.

BRIEFS

HUNAN COUNTY COMMUNE, BRIGADE ENTERPRISES—Shaodong County's commercial departments have effectively supported the development of commune and brigade enterprises. Last year, the value of total output by Shaodong County's commune and brigade enterprises surpassed 100 million yuan. The value of total output by commune and brigade enterprises in the first half of this year was 55 million yuan, up 37 percent as compared with the same period of last year. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 27 Jul 79 HK]

CSO: 4007

INCOME OF EAST CHINA PEASANTS INCREASES

Beijing XINHUA in English 0720 GMT 8 Aug 79 OW

[Text] Beijing, 8 Aug (XINHUA)—The income of peasants in areas around the picturesque Lake Taihu in East China has risen, thanks to increased farm and sideline output in the first half of this year and raised prices for state purchase of agricultural products. The areas cover important farming regions on the fertile Yangtze River delta.

In the ten counties making up Jiaxing Prefecture, the peasants' total income in the first six months this year was 150 million yuan more than in the same period of 1978, averaging 36 yuan per capita. The prefecture is on the southern bank of the lake, within Zhejiang Province. The increase in the income of the rural population was just as great, if not greater, in neighboring Suzhou Prefecture in Jiangsu Province. Each of the 1.7 million peasant families there received on the average an extra income of 40 yuan from sales of pigs alone.

"Farming is becoming more and more rewarding," commented a village book-keeper in Wuxin County. An official of a government purchasing center told XINHUA, "Now we have difficulty handling the growing quantities of grain, eggs, pork and other perishable goods because of a lack of cold storage facilities." New cold storages are being built in some places.

Such goods as televisions, electric fans, wrist watches and sewing machines which formerly only limited number of peasants were able to buy, are now in great demand. About the time of this year's summer harvest, there was a rush to buy wrist watches as the people now had more money to spend. Almost all watches were sold out in some people's communes.

The people's communes and their sub-divisions are richer, too. Many production teams are buying color television sets for their clubs, including 20-inch color T.V. sets costing around 3,000 yuan apiece.

Bank savings have increased month by month in the two prefectures. The total amount of savings reached 20.27 million yuan by the end of June in Taicang County, an average of 200 yuan per peasant family. "The increase in bank savings naturally shows the increase in people's personal income," explained a bank clerk. "At the same time, it shows that the supply of manufactured and other goods, although on the increase, still falls short of the growing buying power of our people."

LAKE TAI, SURROUNDING AREA DESCRIBED

Beijing GUANGMING RIBAO in Chinese 17 May 79 p 2

[Article: "Brief Introduction to Lake Tai"]

[Text] Lake Tai is the largest of the five fresh water lakes in our country and is located on a delta between the Yangtze and the lower reaches of the Qiantang [6929 1048] River. To the north of it lies Wuxi [3341 6932], with Huzhou [3275, 3166] to the south, Yixing [1355 5281] and Changxing [7022 5281] to the west, and Suzhou [5686 1558], Wuxian [0702 4905] and Wujiang [0702 3068] to the east. The entire lake covers an area of 2300 square kilometers with the coastline of the lake running a distance of 393 kilometers. The bottom of the lake is flat with water depths averaging somewhat more than 1.5 meters and the deepest part at the center of the lake being approximately 5 meters. Countless marshes surround the edges of the lake and its shores are criss-crossed with rivers and creeks. Rocky islets of sandstone and limestone dot the surface of the lake, numbering 48 in all with Dongting West Hill being the largest with an area of more than 70 square kilometers. Dongting East Hill is a peninsula that extends into the lake. The portion of the lake that lies east of Dongting East Hill is called East Lake Tai and forms the largest bay in Lake Tai. The area to the west is called West Lake Tai.

Two important water systems empty into Lake Tai. One is the Tiaoxi [5378 3305] water system that originates in the Tianmu [1131 4158] mountains of Zhejiang Province and traverses the area to the southwest of the lake going through the area around Changxing and Wuxing before branching into more than 70 rivulets to enter the lake. The other is the Jingxi [5427 3305] (also known as Nanxi 0589 3305) water system, which rises in the Mao [5403] mountains of Jiangsu and in the mountainous border region of Jiangsu and Anhui and empties into the lake from the west. The principal outlets for Lake Tai number more than 70, both large and small, and are concentrated in its northern and eastern reaches. These outlets become the Yu [5713] River, the Liu [3461] River, the Wusong [0702 3247] River and the Huangpu [7806 3184] River, all of which empty into the Yangtze River.

Lake Tai abounds in aquatic resources. Annual catches of fish and crabs during the past several years have approximated 250,000 dan. Given its vast expanse of water and the superlative natural conditions, Taihu constitutes a fine base for the development of a fishing industry. The fruit orchards that rim the lake occupy a special position with 70 percent of Jiangsu's red bayberries (*Myrica rubra*), 90 percent of its loquats, and almost 100 percent of its tangerines coming from the two hills, Dongting East and Dongting West.

The drainage area of Lake Tai covers an area of 36,500 square kilometers of which hills and mountains account for 16 percent, the riverway and the lake another 16 percent, and the plains area 68 percent. The climate is temperate, and the rainfall both abundant and well-distributed. This area has always been famous for fish and rice and is a key base for commodity grain. During the past several years, it has annually provided 7 billion jin of commodity grain.

Around the lake are located nine county seats, namely Wuxi City, Suzhou City, Xuanxing, Wujin, Wuxi, Wuxian, Wujiang, Wuxing, and Changxing as well as 29 communes. The Lake Tai basin spreads out into Jiangsu Province, Zhejiang Province, and Shanghai to encompass a total of 43 county seats and 1,042 communes with a population of more than 29 million on more than 26,65 million mu of cultivated land, most of which is paddy fields.

Following liberation, water conservancy work achieved much. In the Tai Lake basin, more than 136,000 dykes and reservoirs, large and small, were constructed. Of these, almost 40 were of large or medium size with five of them having a storage capacity of more than 100 million cubic meters. New channels into the lake were opened, the river course in plains areas was dredged, and floodgates were installed in a combination of drainage, water channeling, and navigation. A 600,00 kilowatt power dam for irrigation and drainage is under development, and in recent years the Dianpu [3244 3184] River project was completed as was the expansion of the lower section of the Liu River project, the Xingjian-Hangzhou-Wannan drainage project, and the Jianbi [6169 1084] electric drainage station.

9432

CSO: 4007

BRIEFS

BUMPER SUMMER HARVESTS--Donghai and Gaoyou counties of Jiangsu Province have reaped a bumper harvest of summer crops. Donghai County has already reaped 295.62 million jin of grain from its 680,000 mu of wheat, barley and naked barley, an increase of 57 percent over 1978. The total grain output is expected to exceed 300 million jin or 60 percent increase over 1978. The total grain output of Gaoyou County has reached more than 339.9 million jin, increasing by 38.9 percent over 1978. The total rapeseed output reached 17.27 million jin, more than doubling that of 1978. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 29 Jun 79 OW]

YANCHENG COUNTY SUMMER CROPS--Yancheng County of Jiangsu Province has reaped a bumper harvest of summer crops. The total grain output increased by 100.68 million jin or 35 percent over 1978. The per-mu yield reached 610 jin increasing by 155 jin over 1978. The total rapeseeds output increased by 16 percent over 1978. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 28 Jun 79 OW]

DONGTAI COUNTY BUMPER HARVESTS--Dongtai County, Jiangsu Province, recently held a meeting to celebrate bumper harvests of summer crops. The county has reaped good harvests of 700,000 mu of wheat and 50,000 mu of rapeseeds. At the meeting, citations were awarded to 352 units which had distinguished themselves in growing summer crops. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 17 Jul 79 OW]

ANTIFLOOD STRUGGLE--Yancheng County, Jiangsu, organizes cadres and people to combat waterlogging and floods. A total of 290 CM of rainfall has been recorded in the county since 19 June. From 16 July noon to 17 July noon, heavy rainfall of 115 CM was recorded within a short period of 22 hours, threatening 200,000 mu of farmland. The county also conducts test runs for its 665 irrigation and drainage stations and all its available water pumps for their struggle against waterlogging and floods. Measures have also been taken to protect the county's 390,000 mu of cotton. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 17 Jul 79 OW]

JIANGSU COUNTY WATERLOGGING--Waterlogging in most areas of Huaian County, Jiangsu, caused by recent heavy rains has threatened the growth of autumn crops. The (Liujiu) Commune's 13,000 mu of rice have been flooded and more than 3,000 people have pitched into the struggle against waterlogging, assisted by 283 professional teams in draining flooded fields and more than 500 mechanized pumps. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 19 Jul 79 OW]

JIANGSU COUNTY GRAIN PRODUCTION--The 1979 grain production in Gaoyou County, Jiangsu, was targeted for 100 million jin. The county's grain output from its summer-ripening crops, however, has reached 95 million jin. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 20 Jul 79 OW]

CSO: 4007

'JIANGXI RIBAO' URGES PRELIMINARY DISTRIBUTION OF SUMMER HARVEST

Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 28 Jul 79 HK

[Report on JIANGXI RIBAO commentator's article: "Do Well in Promoting the Preliminary Distribution of the Summer Harvest in Order To Win the Trust of the People"--date not given]

[Excerpts] The commentator's article noted: This year's summer harvest is almost completed and the preliminary distribution of the summer harvest is about to begin. Seriously doing well in promoting the preliminary distribution of the summer harvest is an important task in further implementing the spirit of the third plenum of the CCP Central Committee. The party committees at all levels in the countryside must attach very great importance to the task and specifically do well in firmly grasping it.

To do well in promoting this year's preliminary distribution of the summer harvest, we must do well in conducting investigations and study and seriously study the new situation and problems which have emerged in this year's preliminary distribution.

We should see that there are many new features, situations and problems in this year's preliminary distribution as compared with past years. For instance, over 80 percent of the production teams have divided themselves into annual and seasonal work groups. Some of them have also practiced the system of production responsibility in connection with the yield. Moreover, the procurement prices for grain and agricultural sideline products have been raised. In this way, they have caused new problems in the preliminary distribution of the summer harvest and have thus intensified its complex nature. Old methods are therefore not suitable for this year's new situation.

With reference to this year's new situation and features, we must do well in promoting soundly-based and detailed tasks. First we must do well in studying the spirit of the third plenum of the CCP Central Committee, the two important documents of the central authorities on developing agriculture, the summary of the forum of the State Agriculture Commission on the issue of rural work authorized for dispatch by the central authorities and also Premier Hua Guofeng's government work report, criticize and

eliminate the pernicious influence of the ultraleftist line of Lin Biao and the "gang of four," continue to emancipate the mind, determinedly correct past mistakes and follow party policies to the letter. We must realize what should be realized. We must win the trust of the people and must not break our promise to the people. We must put particular emphasis on respecting the right of self-determination of production teams in the distribution of earnings and must not unscrupulously intervene in their work.

To do well in promoting the preliminary distribution of the summer harvest, we must also uphold education in the four basic principles, do well in promoting ideological and political work and correctly handle the relations among the state, collectives and commune members. Preliminary distribution of the summer harvest is in the nature of payment in advance. We must take it as preliminary distribution only and not final distribution, take into account both past experience and the situation that may possibly arise in the future and base ourselves in the whole year.

We must take into account the interests of the state, collectives and commune members. It is incorrect to pay attention only to increasing peasants' income and not to fulfill the state's procurement task or the loans and taxes. Violating party policies, procuring excess grain and creating too many reserves with the result that the peasants cannot have an increase in their income or even suffer from a reduction in their income are also incorrect. We must insure the fulfillment of the task of storing summer grain in granaries and, with reference to the practical situations of different places, reserve adequate food grain for commune members. The distribution of food grain to commune members must be carried out in such a way that it is beneficial to mobilizing the enthusiasm of most of the peasants and to planned parenthood. We must also properly take care of those dependents of martyrs and army men and households with difficulties which have suffered from grain shortages.

We must pay particular attention to doing well in handling the relations among commune members and between commune members and cadres. In handling these relations, we must resolutely implement the principle of to each according to his work and more pay for more work. We must never work on the principle of equalitarianism again. We must pay the commune members work points and remunerations according to the quality and quantity of their labor and practice equal pay for equal work for both men and women.

CSO: 4007

JIANGXI

BRIEFS

JIANGXI COUNTY LATE RICE—In Yushan County, there are more people but less farmland. In 1978, the people in this county planted 210,000 mu of late rice, accounting for 31.4 percent of the total area sown to grain for the whole year. In order to reap a bumper harvest of late rice this year, the county CCP Committee held a forum in mid-May to study and conduct concrete analysis on increasing the output of late rice. In 1978, the people in this county experienced the most serious drought in history. They did not receive any rain for 51 days. This year, the county increased the areas sown to hybrid rice from last year's 70,000 mu to 120,000 mu, accounting for 60 percent of the area sown to late rice. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 20 Jul 79 HK]

JIANGXI COUNTY REAPING, SOWING—Dayu County has done well in promoting crash reaping and sowing. By 17 July, the county had harvested some 56,000 mu of early rice, amounting to 41 percent of the area of early rice, and had crash sown some 37,500 mu of late rice, amounting to 25 percent of the planned area of late rice. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 19 Jul 79 HK]

JIANGXI COUNTY AGRICULTURE—By 22 July the peasants in Wannian County have completed 50 percent of the reaping and sowing of their 240,000 mu of farmland. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 27 Jul 79 HK]

CSO: 4007

JILIN

RESIDENTS COMMENDED FOR SIDELINE BUSINESSES

Beijing XINHUA in English 0257 GMT 2 Aug 79 OW

[Text] Changchun, 2 Aug (XINHUA)--Aside from always completing their collective duties with flying colors, Feng Yun and her family run a private rabbit farm from which they earn an additional income of 400 yuan annually. This hard-working peasant woman in Jilin Province was commended at a recent meeting that was broadcast to every village in the province, for having supplied annually 150 rabbits to the local government purchasing center and 30 tons of rabbit droppings and other farmyard manure to the production team over the past few years.

Also commended at the meeting were 986 other peasants, 52 communes, 134 production brigades and 107 production teams for expanding sidelines while increasing farm output. Speaking at the meeting, Provincial Revolutionary Committee Vice-Chairman Zhang Zhiying stressed the need to expand both co-operative and private sidelines to accumulate funds for farm mechanization and improve the living standards of the peasants. "Private sidelines must be encouraged so long as it does not affect collective production and involve speculation and exploitation of others," he said. Under the ultra-left policies pursued by the "gang of four," rural sidelines, especially private sidelines, were suppressed allegedly to prevent the peasants from drifting toward capitalism. Sideline efforts have risen steadily since the "gang's" overthrow in October 1976.

In Jilin Province, income from co-operative sidelines approached 400 million yuan last year, 12 million yuan more than 1977. The total value of output from private sidelines was 1,060 million yuan, or 59 yuan per capita, a 41 percent increase over 1977.

CSO: 4020

BRIEFS

LIAONING LAND IMPROVEMENT--Since last winter, Luda Municipality, Liaoning Province, has leveled 300,000 mu of land, improved the soil on over 460,000 mu, built more than 1,000 irrigation projects and increased irrigated land by 210,000 mu. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 5 Jul 79]

LIAONING AQUATIC PRODUCTS--The aquatic front of Jin County, Liaoning Province, caught more than 3,900 tons of aquatic products by the end of June, fulfilling 54.2 percent of the annual production plan and marking a 21.3 percent increase over the corresponding period of last year in fishery income. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 21 Jul 79 SK]

LIAONING COMMUNE-RUN OUTPUT--By the end of June 1979, the total industrial output value of commune- and brigade-run enterprises in Liaoning Province reached some 987 million yuan. Out of 12 prefectures and municipalities, Shenyang, Anshan, Liaoyang, Jinzhou and Yingkou fulfilled more than 40 percent of their industrial output value plan. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 1 Aug 79 SK]

CSO: 4007

NEI MONGGOL

BRIEFS

LIVESTOCK PRODUCTION--Hohhot, 14 Jul--The Hulunbuir Meng in Nei Monggol registers 18 percent and 2 percent net increases in the number of animals raised in the autonomous region. It has now 3.25 million head of animals and 130 million mu of pastureland with abundant water plants and grass. [Beijing XINHUA Domestic Service in Chinese 0221 GMT 14 Jul 79 OW]

CSO: 4007

BRIEFS

PASTURE LAND--Yushu Tibetan Autonomous Prefecture, Qinghai, is endowed with over 100 million mu of natural pasture land. It is one of Qinghai's major livestock areas. In recent years, the prefecture made great efforts to improve these natural pasture lands. By the end of 1978, it had improved 157,000 mu of natural pasture land. [Xining Qinghai Provincial Service in Mandarin 1100 GMT 30 Jun 79 OW]

CROP PROTECTION--Since early this year, herbicide has been applied to 49,000 mu of farmland in Huangyan County of Qinghai Province, an increase of 8-fold over 1978. In Guide County, herbicide has also been applied to 30,000 mu of farmland to wipe out wild grass harmful to farm crops. Herbicide was first introduced in Guide County on experimental basis as early as 1967. [Xining Qinghai Provincial Service in Mandarin 1430 GMT 29 Jun 79 OW]

QINGHAI FARM MACHINERY--Qinghai Farm Machinery Plant produced 950 hand-supported tractors in the first half of this year, an increase of 92 percent over the same period in 1978. [Xining Qinghai Provincial Service in Mandarin 1430 GMT 20 Jul 79 OW]

CSO: 4007

SHAANXI

BRIEFS

SHAANXI COUNTY POULTRY PRODUCTION—Xian, 21 Jul—Gaoling County of Shaanxi Province has over 510,000 chickens of Leghorn breed, with each of 35,000 households raising 14.5 chickens on the average. During the first 6 months of this year, this county has sold over 699,000 jin of fresh eggs, with each household earning 20 yuan on the average. [Beijing XINHUA Domestic Service in Chinese 0141 GMT 21 Jul 79 OW]

CSO: 4007

BRIEFS

WHEAT HARVEST--Changwei Prefecture, Shandong Province, reaped a bumper harvest on 7.6 million mu of wheat this year, a 10 percent increase in both per-mu yield and total output compared to last year, topping previous records. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 3 Jul 79 SK]

SHANDONG WEATHER--Shandong Province had continuous rain from 2 to 3 July. On 18 June the monsoon season began. In the past one third of the annual rainfall has occurred in July; therefore, all localities must make preparations against flooding and thunderstorms. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 3 Jul 79 SK]

ANTI-FLOOD CONFERENCE--The Shandong Provincial Revolutionary Committee held a telephone conference on 29 July on the topic of flood control. The conference pointed out that in line with the demands set forth by the Shandong Provincial CCP Committee, the various localities across the province have completed a large amount of preliminary work such as establishing flood-prevention organizations, revamping and building flood-prevention projects and setting up flood-prevention contingencies. However, we must note that many serious problems remain to be solved. The conference analyzed the weather situation and put forward concrete demands to strengthen preparations for preventing floods and waterlogging by possible typhoons and heavy rainfall in August as forecast by the meteorological observatory. The conference called on the various localities to heighten their awareness, and make full preparations for fighting the battle of flood-prevention successfully and contributing to a bumper harvest this year. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 30 Jul 79 SK]

SHANDONG COUNTY GRAIN PRODUCTION--As of 1 July, Yidu County in Shandong Province completely fulfilled its task for procuring summer grains and storing summer grains in granaries. The county delivered the public grains and sold the surplus grains for a total sum of 61 million jin and surpassed the amount of grain sold in 1978 by 10.92 million jin. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 9 Jul 79 SK]

SHANGHAI

BRIEFS

BUMPER CROPS—Peasants in Shanghai suburbs have reaped a bumper harvest of summer grain and rapeseeds with the total and per-mu yield scoring an alltime high. The summer grain yield from more than 2.3 million mu was more than 1.18 billion jin, with a per-mu yield of 510 jin. The per-mu yield increased more than 10 percent over 1978. A total of 760,000 mu of rapeseeds were cultivated this year, and the total output reached 2.35 million dan with a per-mu yield of 309 jin. [Shanghai City Service in Mandarin 2300 GMT 24 Jul 79 OW]

FLOOD CONTROL—The Shanghai Municipal Revolutionary Committee called a work conference on flood control on 4 August to study and work out flood control plans against typhoons the conference emphasized that now is the typhoon season and according to meteorological departments the rainfall volume is expected to be greater than usual. A strong typhoon is expected between early March and late September. The conference called on all departments concerned to be prepared. [Shanghai City Service in Mandarin 0000 GMT 5 Aug 79 OW]

CSU: 4007

COLD SPELL, DROUGHT, OTHER NATURAL CALAMITIES COMBATED

Beijing XINHUA Domestic Service in Chinese 0157 GMT 27 Jul 79 OW

[Excerpts] Taiyuan, 27 Jul—Cadres and commune members in Shanxi's rural areas are strengthening autumn grain and cotton crops field management and making every effort to win bumper harvests this year.

During the spring farming season, rural areas in Shanxi Province experienced a cold spell and spring drought, which delayed the sowing time for approximately 10 days. Heavy rainfall between late June and early July created optimum conditions for the growth and spread of armyworms, bollworms, corn scabs and other plant diseases and insect pests. In addition, many counties suffered wind, hailstorm and flood damage to varying degrees. Faced with this situation, party organizations at all levels in rural Shanxi have been actively mobilizing the masses to combat these natural disasters.

Provincial agricultural departments have organized and sent 29 separate work groups to Yuncheng, Linfen, southeastern Shanxi, Xin County, Luling, Central Shanxi and Northern Shanxi to help local communes and brigades strengthen field management, prevent and eliminate plant diseases and insect pests and control flooding and reduce hailstorm damage. Various prefectures, municipalities and counties also assigned some 20,000 office cadres to grassroot areas to direct autumn crop field management.

CSO: 4007

SICHUAN

SICHUAN PAPER REVIEWS FORESTRY PROBLEMS, TASKS

Chengdu Sichuan Provincial Service in Mandarin 2310 GMT 9 Aug 79 HK

[SICHUAN RIBAO 10 August editorial: "It Is Imperative To Grasp Forestry Construction"]

[Summary] The recent Sichuan provincial conference on farmland capital construction treated forestry construction as an important content of this work and made unified arrangements for it. The conference demanded that the province work hard for 10 to 20 years to bring about a new situation of great development in the province's forestry construction.

Sichuan has achieved very great progress in forestry construction since the liberation. However, there are also many problems and shortcomings in the work. Forestry is very far from meeting the demands of the four modernizations. "The current outstanding problems are: There is gravely excessive lumbering; the survival rate of newly-planted trees is low; there is serious waste of forest resources; and the regeneration rate is low. These problems have caused very great difficulties for agricultural production, national construction and the people's life." It is imperative to work hard to change this state of affairs. Fundamentally speaking, these problems have not yet been solved. There is still excessive lumbering and serious destruction of forests for reclaiming farmland. The forestry principles and policies have still not been properly implemented.

It is essential to correctly understand the important position of forestry in the natural scheme of things. To do well in forestry construction is an indispensable condition for developing agriculture at high speed. "In the past, due to lack of understanding on this point and our one-sided view of taking grain as the key link, for many years we failed to grasp forestry in a position of equal importance with agriculture. As a result we were punished by nature. This is a very profound lesson. What is worth noticing is that there are still some comrades who have not enhanced their awareness despite this punishment. They still lack understanding of the importance of developing forestry. They lack resolve and drive to grasp afforestation.

They issue many general calls but take little practical action. As a result, afforestation progresses slowly, the quality of the work is poor and the results are sparse. This requires that the party committees at all levels step up ideological and political work, fully realize the importance and urgency of developing forestry, truly place forestry in a position of equal importance with agriculture, grasp it as a content of farmland capital construction, and correctly handle the relations between lumbering and afforestation, utilization and development, and planting saplings and planting trees. They must correct the erroneous method of attaching much importance to lumbering and little to afforestation, resolutely implement the principle of taking afforestation as the foundation and strengthen the work of planting and tending young trees." It is necessary to work hard to change the basic conditions of agricultural production in the province and promote the modernization of agriculture.

Various progressive units in carrying out afforestation have emerged in the province in recent years. All places should study and popularize their good experiences. It is necessary to continue to vigorously publicize and implement the forestry laws and the provincial CCP Committee's forestry policy as contained in its decision on promoting afforestation. "It is necessary to properly handle problems between the state and the collective and between the collective and the peasants, and problems of mountain and forest rights, remuneration for afforestation and forestry protection, and forestry distribution work. There must be no changes in places where mountain and forestry rights have already been clearly defined. Wherever there are disputes, they must be solved by consultation with the parties concerned. Whenever disputes cannot be solved, they can be referred to the upper levels for solution." It is necessary as well in publicizing and implementing all the relevant policies.

It is necessary to make a success of formulating plans for afforestation. Such plans must be drawn up in the light of local conditions. Seed work must be grasped well, otherwise afforestation cannot be carried out. In afforestation work, it is necessary to combine mass movements with professional forces and to promote the building of forestry bases. Forestry protection forces must also be built up, and indiscriminate felling of trees must be resolutely curbed. At present, the province should do well in preparing for autumn afforestation work.

CSO: 4007

DEVELOPMENT, USE OF GRASSLANDS CONTINUING

Beijing GUANGMING RIBAO in Chinese 3 May 79 p 1

[Article: "Success Achieved in the Development and Use of Grasslands in Northwest Sichuan by Livestock Industry Scientific Research Personnel After Three Years of Arduous Struggle"]

[Text] Reporter Li Jiajie [2621 1367 2638] reports: After 3 years of arduous struggle, livestock industry scientific research personnel in the grasslands of Sichuan Province have achieved a measure of success in their research into the development and use of the grasslands of northwestern Sichuan.

The grasslands of northwestern Sichuan, covering an area of 160 million square mu and abounding in natural resources, constitute the most important livestock region of our country. Since the decade of the 60's, departments concerned in the central government as well as the Scientific Commission of Sichuan Province, have organized on several occasions large scale comprehensive examination of the northwestern grasslands in Sichuan and have collected a vast amount of scientific data on them. In 1976, the central government made research into the development and use of the grasslands of northwestern Sichuan a key national scientific research project. In that same year, the Scientific Commission of Sichuan Province began to organize 30 institutes and schools of higher learning, more than 50 professors from scientific research units, lecturers, and scientific research workers to join the ranks of scientific research conducting continuous activity in the grasslands of northeastern Sichuan. The institutes and schools of higher learning included the Chengdu Botanical Research Institute of the Chinese Academy of Sciences, the Sichuan Institute of Agriculture, the Southwest Nationalities Institute, the Provincial Grasslands Institute, the Institute of Livestock and Veterinary Medicine, the Institute of Agricultural Machinery, the Institute of Forestry, and the Institute of Machine Design. Together with local scientific research personnel, workers, and herdsmen, scientists selected four separate ranges of poor quality in four separate counties of differing ecology to establish four scientific research experimental bases of 10,000 mu each. The four bases were in the counties of Hongyuan, Shiqu, Xeda, and Luoergai. For 3 years they conducted research in the high and cold open country on improvements to and utilization of the range, livestock improvement, building of forests to protect the herds, uses of peat, propagation of fruit orchards, and domestication

of rare and wild Chinese medicinal herbs. They garnered a vast amount of scientific data as a result of comparative experiments using different methods and following repeated study of varieties of things they had introduced into the region. After sifting through improved varieties of seeds for forage grass suited to the climate of the region, they found effective ways to increase the quantity of forage grass over wide areas. They explored ways to speed improvements in yaks, and learned how to breed new hybrids of sheep to produce semi-fine wool.

Forage grass is the key material foundation for the development of the livestock industry. In the course of research on improvements and uses of range grasses, the scientific researchers plowed under existing vegetation in order to replace it entirely. At the same time they used a broad range of technical measures such as loosening the soil, reseeding, spreading fertilizer, and close planting to build both man-made ranges and partially man-made ranges for experimental purposes. They were able, thereby, to raise the per mu amount of forage grass from its natural level by 4 or 8 times on man-made ranges, and from 0.5 to 0.6 times on partially man-made ranges. Man-made ranges yielded a maximum of more than 1700 kilograms of forage grass per mu. Three years of practice in scientific research has demonstrated that man-made grass ranges are more effective in changing the grasslands than partially man-made ranges. The Sichuan provincial committee has, therefore, decided to expand them over a large area this year. Following appraisal of varieties of forage grasses introduced into the area, they selected *Myriophyllum spicatum* Linn., *Clinelymus nulan* (Griseb.) Nevski., *Bromus inermis* Leysser, and coarse *Poa annua* L. as well as others for a total of 10 varieties suited to the climatic conditions of the region. These improved varieties of grasses produce high yields of fine quality and their seeds may be either recovered or left for further propagation. The *Myriophyllum spicatum* Linn. possesses rather large amounts of crude protein and can serve as important protein feed for all kinds of livestock. Its use is being expanded in pastoral areas. In addition, the forest belts they planted are beginning to show benefits, demonstrating that forest belts for the protection of herds can clearly raise the temperatures of the land and the air, reduce wind speeds, and raise forest grass production over wide areas. They introduced more than 80 varieties of rapidly growing trees, which they selected for resistance to cold and ability to winter over so as to provide benefits everywhere of forest belts for the protection of herds.

One of the important goals in building a foundation for the livestock industry is to provide the people with quantities of meat, milk, hides, and wool. In the course of their research to improve livestock, the scientific research personnel inseminated the original breed of oxen who inhabit the grasslands namely yaks, with frozen sperm from prize male oxen. After repeated experiments, they obtained results in "successful mating, births, growth, and maturation." Generally speaking, first generation hybrids have shown an increase of 30 percent in their body weights at birth over the original yaks. In the second generation, this increased to 50 percent. Under conditions of equally good feeding, gelded bulls one and one-half years old produced more than 100 kilograms net weight of meat, an increase of 100 percent over the original yaks of the same age. Last year this method was used to mate 9,000

head of the original yaks, more than the total number of yaks crossbred in the grasslands of northwestern Sichuan during the past 20 years. In the breeding of sheep breeds to produce wool for 48 to 50 count yarn, they built on their experiments with hybrid combinations and conducted further experiments in crossbreeding to stabilize the breeds. The crossbred lambs that have resulted show excellent results.

Research on mechanized equipment to support the livestock industry in the grasslands has resulted in development by scientific research personnel of different types of liquid nitrogen storage tanks to fill a partial void in our country's low temperature containers. Other things such as reciprocating grass mowers, single disc hay chopping machines, revolving hay rakes, 100 liter cow's milk separators, milking machines for yaks, yak shearing machines, and grass seed collectors have shown headway in development.

In the interest of completeness, scientific research personnel have additionally completed research in the domestication of the wild herb known as tendril-leaved fritillary bulb that is used in Chinese medicine, and they have achieved superlative yields of 100 jin per mu in its cultivation. In experiments on the electrification of the pastoral region, they conducted research on the use of methane for illumination and as fuel, and completed experiments on how to extract humace from a peat-like substance [caomei 5430 3561].

While the scientific research personnel were engaged in research on the development and uses of the grasslands in northwestern Sichuan to obtain the above results, they were also busy training a group of scientists and technicians for the livestock industry of the grasslands. Within the past 3 years, they have run science and technology classes in genetic reproduction, sheep breeding, biological statistics, and artificial insemination, training more than 300 locals as key technical cadres for the grasslands.

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CSO: 4007

BRIEFS

PADDY RICE--Chengdu, 22 Jul--The Sichuan Agricultural College has successfully cultivated a new rice strain with a per-mu yield at an experimental plot in Yaan Prefecture, Sichuan, reaching 1,210 jin. Some 400,000 mu of land in Sichuan are now planted with this rice. The new paddy rice strain has also been promoted in Sichuan, Jiangxi, Guangxi, Yunnan, Guizhou, Shaanxi and other provinces. [Beijing Xinhua Domestic Service in Chinese 0112 GMT 22 Jul 79 OW]

SICHUAN COUNTY RAPESEED PRODUCTION--Chengdu, 21 Jul--Wenjiang County of Sichuan Province has reaped a bumper harvest of rapeseeds this year, with per-mu output increasing from more than 270 jin in 1978 to over 300 jin this year. [Beijing XINHUA Domestic Service in Chinese 0106 GMT 21 Jul 79 OW]

CSO: 4007

FOREST, GRASS SHELTER SYSTEMS BUILT AGAINST SAND, WIND

Beijing GUANGMING RIBAO in Chinese 22 May 1979 p 2

[Article: "Theory for Building Protective System for Farmlands in Windblown Sandy Areas Proposed by Forestation and Sand Control Institute of Xinjiang Academy of Agricultural Sciences Following 20 Years of Effort"]

[Text] In places seriously imperiled by windswept sands, it is not enough simply to rely on shelter-forests "fighting all alone" to stabilize and enlarge oases, assure agricultural production, and change the natural landscape. It is necessary to build a shelter-forest system that combines forests and grasses to make strips, belts, and networks of "numerous arms of service fighting a war." Only in this way can effective results be obtained. This is the theory put forward by the scientific research personnel of the Forestation and Sand Control Institute of the Xinjiang Academy of Agricultural Sciences. It was born of 20 years of probing the movements of the windblown sands and the pattern of their destructiveness plus an earnest summarization of the practical experiences of the masses.

To the north and south of the Tianshan range in the Xinjiang-Uighur Autonomous Region, the Tarim Basin, the Dzungarian Basin, oases, deserts, and the Gobi all interconnect over a vast area. In many of these areas great winds are frequent during the autumn and spring seasons, everywhere imperiling with windblown sand the agricultural production of the oases. Consequently, how to prevent farmlands from being turned into desert, and how to stabilize and enlarge oases has become a key problem for the development of agriculture in this autonomous region. Over the past 20 years, scientific research personnel working to control the sands and create forests have conducted systematic investigation and observation in both the 42 counties where windblown sand is serious and in state farms. Through practice they came to realize that under present circumstances in which permanent control of the desert is impossible, the next best method is to combine sand control with shelter-forests to achieve the goal of protecting the oases and "nibble away" bit by bit at the desert. Starting from the theoretical foundation of using shelter-forests, which people have used for several decades, they proposed a theory, the key to which is forest networks to protect fields, that combines forests and grasses in a shelter-forest system.

The salient points of this theory are that in areas of severe damage from windblown sand, three defense lines be built on the edges of oases and within oases in order to stabilize and expand the oases. The first line would consist of various plants that grow in sand (mostly grasses) to form a belt between 200 and 500 meters wide to block the sand. Not only would this keep the sand from drifting there, but it would also trap most of the sand blown in from great distances during a sandstorm as well as greatly reduce wind speeds. The second line would be composed of bushes and scrub growth arranged in many strips to form a thicket to impede the wind and obstruct the sand. Its principal function would be to trap more of the sand that got through the first line and to continue to reduce wind speeds. The third line would be a shelter-forest and field network of various bushes to reduce the speed of the wind even further, to regulate climate and earth temperatures, to reduce evaporation, and to lower the encrustation of the soil with salt. They have already thoroughly investigated and analyzed how large the shelter-forests should be. They changed from the indiscriminate foreign practice of using "large forest belts and large networks" adopting instead "narrow forest belts and small networks." This not only effectively reduces wind speeds and improves plant ecology but also conserves use of ground water with benefits for cultivation. These achievements have been widely promoted for use by production units with excellent results. Their positive achievements in scientific research ["Research on Windblow Sand on Farmlands"] earned them a prize last year from the All-China Science Congress.

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XINJIANG

BRIEFS

XINJIANG LIVESTOCK BREEDING—Xinhe County, Xinjiang, reported successful livestock breeding for the fourth straight year since 1976 with an annual increase of 9.4 percent. An average annual growth of 27.9 percent was also registered in agricultural production between 1975 and 1978. The county delivered 45,000 livestock to the state, totaling 1.48 million jin of meat, and sold 638,000 yuan worth of animal products in 1978. The county's total grain output reached 20.14 million jin last year. Over the past 4 years, Xinhe County has sold 16 million jin of marketable grains to the state. The county now has 430,000 livestock. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 21 Jul 79 OW]

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XIZANG

BRIEFS

DAGZE COUNTY CROP DAMAGE--More than 10,000 mu of winter-sown crops of Dagze County, Xizang, have been seriously damaged by drought. The remaining 20,000 mu are not so seriously afflicted. [Lhasa Xizang Regional Service in Mandarin 1350 GMT 13 Jul 79 OW]

CSO: 4007

AGRICULTURAL RESOURCES, ZONING DISCUSSED

Kunming Yunnan Provincial Service in Mandarin 2315 GMT 4 Aug 79 HK

[Summary] The Yunnan Provincial Agricultural Committee and Science and Technology Committee recently held a provincial meeting on surveying agricultural natural resources and agricultural zoning, to convey the spirit of the national conference on this topic and make arrangements for this work in the province. The conference demanded that the province make a success of the following work:

1. Organize forces to collect, put in order and analyze the existing data and make full use of it in serving current production. It is also necessary to step up on-the-spot investigations in order to fill in gaps in the data, to provide a scientific basis for further developing production.
2. Strive to work out agricultural zoning plans before the end of this year in order to meet the needs of agricultural modernization.
3. Carry out a soil survey in accordance with the demands of the national soil survey and insure the quality of the work.

The conference demanded: "The party and revolutionary committees at all levels must put the agricultural natural resources survey and agricultural zoning on their agenda, unify their leadership, practice division of labor and cooperation, coordinate the upper and lower levels, and bring into full play the backbone role of the scientific and technical personnel. They must strive to do a good job of surveying the province's agricultural natural resources and of agricultural zoning, to serve the modernization of agriculture."

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BRIEFS

FARMLAND CAPITAL CONSTRUCTION—The Yunnan Provincial CCP Committee has decided to hold in August a work conference of the Provincial CCP Committee in Chuxiong. The prefectures and counties will send representatives to take part. The conference will emphatically study and make arrangements for farmland capital construction and some other momentous issues. Since liberation, 230,000 farmland capital construction projects have been completed in Yunnan. The irrigated areas have been increased to 14 million mu. [Kunming Yunnan Provincial Service in Mandarin 1330 GMT 31 Jul 79 HK]

CSO: 4007

BRIEFS

WENZHOU PREFECTURE RICE HARVEST--As of 8 July, Wenzhou Prefecture of Zhejiang Province has completed harvesting early rice from over 48,000 mu of rice field in the prefecture. Rice output is expected to be better than that of last year. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 11 Jul 79 CW]

LISHUI PREFECTURE EARLY RICE--As of present, Lishui Prefecture in Zhejiang Province has completed harvesting early rice from more than 10,000 mu of rice field in the prefecture. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 11 Jul 79 CW]

WUXING APPLE PRODUCTION--Wuxing County of Zhejiang Province is expected to harvest 1 million jin of apples from 200,000 apple trees in the county, with the total output increasing by three times over that of 1978. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 16 Jul 79 CW]

XIAOSHAN GINGER PRODUCTION--Xiaoshan County of Zhejiang Province is actively engaged in developing ginger production. At present this county has planted ginger to more than 6,600 mu of land available, an increase of five times over that of last year. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 16 Jul 79 CW]

ZHEJIANG AQUATIC PRODUCTS--Hangzhou, 14 Jul--The Zhoushan fishing ground in Zhejiang Province, which produces 10 percent of China's fishing products, has caught 650,000 dan of cuttlefish by the end of June. Its export for the first 6 months this year is more than doubled as compared with that for the whole year of 1978. Its output of kelp and laver for the first half of 1979 has increased by 40 to 50 percent over that in the same period in 1978. The Zhoushan Prefecture has increased the number of drifters by 155, large boats by 167, and small motorized junks by 69 pairs as compared with last year. The prefecture now has 4,500 mu of laver. [Beijing XINHUA Domestic Service in Chinese 0233 GMT 14 Jul 79]

ZHEJIANG FORESTRY DEVELOPMENT--After conducting several months of thorough investigations by nearly 1,000 cadres, the party committee of Lishui Prefecture in Zhejiang Province has taken effective measures to readjust the imbalance between afforestation and timber felling in the hilly areas. The prefecture annually provides the state with 340,000 cubic meters of marketable timber, or 62 percent of the total procurement of Zhejiang. The party committee has planned to plant 3 million mu of timber forest, 1 million mu of bamboo and 2.4 million mu of marketable timber forest in the hilly areas. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 15 Jul 79 OW]

NEW IRRIGATION TECHNIQUE--Sprinkling irrigation technique is being widely promoted in Ningbo Prefecture, Zhejiang. In the past 5 years, the prefecture has promoted 1,560 sets of mobile sprinklers and established some 260 sprinkling stations, covering a total of 80,000 mu of farmland. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 15 Jul 79 OW]

ZHEJIANG COUNTY EARLY RICE--Wenling County, Zhejiang, organizes commercial and supply departments to support summer farming. As of now, the county has planted 400,000 mu of early rice, marking an increase of 200,000 mu as compared with that in last year. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 22 Jul 79]

SUMMER HARVESTING--The Zhejiang Provincial Revolutionary Committee held a telephone conference on 27 July. The meeting urged all localities to strengthen leadership over summer harvesting and sowing and to properly concentrate the labor force to insure success. Yuan Fanglie, standing committee member of the Provincial CCP Committee and vice chairman of the Provincial Revolutionary Committee, addressed the meeting which was attended by responsible persons of prefectures, municipalities, counties and departments concerned at the provincial level. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 28 Jul 79 OW]

FORESTRY DEVELOPMENT--After conducting several months of thorough investigations by nearly 1,000 cadres, the party committee of Lishui Prefecture in Zhejiang Province has taken effective measures to readjust the imbalance between afforestation and timber felling in the hilly areas. The prefecture annually provides the state with 340,000 cubic meters of marketable timber, or 62 percent of the total procurement of Zhejiang. The party committee has planned to plant 3 million mu of timber forest, 1 million mu of bamboo and 2.4 million mu of marketable timber forest in the hilly areas. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 15 July 79 OW]

HOG RAISING--As of the end of May, Zhejiang Province had 14.23 million hogs in stock, a 27-percent increase over the same period last year. The state purchased 4.2 million head, which topped the same period last year by 64 percent. To enhance the peasants' enthusiasm in hog-raising, the Provincial Revolutionary Committee has approved a system of purchasing contracts in advance between foodstuffs companies and commune members in 22 key hog-raising counties. Purchasing prices and the methods of award remain unchanged. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 13 Jul 79 OW]

ANIMAL PRODUCTS--During the first six months of this year, the amount of animal products procured and exported in Zhejiang has topped those of the same period last year by 58.5 percent and 48.9 percent respectively. In the past six months, the province has procured 700,200 jin of rabbit fur which will earn more than 10 million U.S. dollars of foreign exchange for the state. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 22 Jul 79 OW]

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II. PUBLICATIONS

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Beijing ZHONGGUO SHOUYU ZAZHI [Chinese Veterinary Medicine Journal] in
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[By Pingxiang Municipal Bureau of Agriculture; published by Jiangxi People's Publishing House]

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CSC: 4007

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[By Guangdong Provincial Bureau of Agriculture, Grain Production Department; published by Guangdong People's Publishing House]

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